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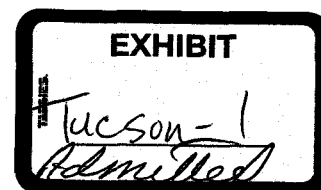
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Exhibit #: ENRON1, TUC1, TUC2

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BEFORE THE ARIZONA CORPORATION COMMISSION

JIM IRVIN

Commissioner -- Chairman

RENZ JENNINGS

Commissioner

CARL J. KUNASEK

Commissioner

IN THE MATTER OF THE COMPETITION IN ) DOCKET NO. U-0000-94-165  
THE PROVISION OF ELECTRIC SERVICES )  
THROUGHOUT THE STATE OF ARIZONA ) DIRECT TESTIMONY OF  
\_\_\_\_\_) EUGENE P. COYLE

On Behalf of  
THE CITY OF TUCSON

JANUARY 21, 1998

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DIRECT TESTIMONY OF EUGENE P. COYLE

I. Qualifications

Q. Please state your name and address.

A. My name is Eugene P. Coyle. I am a consulting economist. My business address is Suite 702, 433 Town Center, Corte Madera, Ca. 94925

Q. Please briefly summarize your professional experience and education.

A. I received a BA degree with a major in economics from Providence College in 1954. Following military service as a pilot in the U. S. Air Force and employment as a commercial pilot in South America, I enrolled in graduate school in 1960.

I began studying public utilities professionally in 1962 at a private bank on Wall Street, Brown Brothers Harriman & Co. I have continued, since then, to closely follow public utilities.

At Brown Brothers I was responsible for recommending investments in the common stock of utility companies. As part of the duties I traveled throughout the country to familiarize myself with the growth prospects of utility service territories, to interview and evaluate utility management (generally seeing the Chief Executive Officer and/or the Chief Financial Officer) and, in short, to make a judgment about the future prospects of the company.

I was also responsible, at , for appraising all corporate bond offerings as investment vehicles for the bank's clients. I evaluated the suitability of each offering for various classes of investors and forecast the yield at which the offering would be made.

1 I was awarded a Teaching Fellowship at Boston College in 1964 and took a  
2 leave of absence Brown Brothers Harriman & Co. I was a Teaching Fellow for  
3 two years and earned my Ph. D. in economics from Boston College in 1969. In  
4 addition to the full graduate program leading to the Ph. D. I also took courses in  
5 accounting and public utility investment at New York University's Graduate  
6 School of Business Administration.

7  
8 In 1969 I was invited to participate in a conference on financial aspects of  
9 utility regulation at Stanford University, co-sponsored by American Telephone  
10 and Telegraph and in 1972 I received a National Science Foundation grant to  
11 participate in a six week conference on applied price theory at Brown University.  
12 My dissertation, The Theory of Investment of The Regulated Firm -- In the  
13 Special Context of Electric Power was partially supported by a grant from the  
14 Institute for Public Utilities at Michigan State University.

15  
16 I taught economics and finance at the graduate and undergraduate level  
17 on a full-time basis for seven years and have occasionally taught evening course  
18 at the undergraduate level. I spent the Spring semester of 1989 teaching full-time  
19 in the MBA program of the University of La Verne in Naples, Italy.

20  
21 Since 1974 I have maintained a consulting practice in economics. My  
22 focus has been on regulatory, resource and energy economics for a variety of  
23 clients, including the U. S. Department of Justice, resource owners, law and  
24 geophysical firms, agencies of numerous states, and consumer and  
25 environmental groups.

26  
27 I participated in the significant reform of utility regulation, especially with  
28 respect to cost allocation and rate design, triggered by the energy crisis of the  
29 1970s. In 1979 I developed and executed the first computerized cost allocation  
30 study for a state consumer agency in the U. S. and both the pioneering method  
31 and results were adopted by the New Jersey Commission. Subsequently this  
32 method was approved and used in other states as well.

33  
34 I have testified as an expert witness in Federal and State Courts and before  
35 public utility commissions in 22 states and the territory of Guam. In addition I

1 have testified on utility and energy issues before the United States House of  
2 Representatives and legislative bodies and public authorities in several states.

3  
4 I have participated actively in the national debate on restructuring and  
5 have testified before state commissions and state legislatures on restructuring  
6 issues, including on stranded costs, and have spoken widely at national  
7 conferences on restructuring.

8  
9  
10 **II. Purpose of Testimony**

11  
12 **Q.** What is the purpose of your testimony?

13  
14 **A.** I have been asked by the City of Tucson to respond to the eleven questions  
15 proposed by the Commission in connection with developing policy on the issue  
16 of "stranded cost."

17  
18  
19  
20  
21 **III. The Commission's Questions**

22  
23  
24  
25 **Issue 1. Should Electric Competition Rules be modified regarding stranded**  
26 **costs, if so, how?**

27  
28 **Q.** What do you believe are the fundamental issues regarding the rules?

29  
30 **A.** The basic issues concerning the rules are: 1) are they fair; 2) are they  
31 consistent; 3) are they clear, and most importantly; 4) do they help accomplish  
32 the goals to protect consumers and advance competition and the public interest.

33  
34 **Q.** What is your opinion of the rules and proposed changes?

35

1 A. I do not suggest major changes in the rules. In general, they do contain  
2 fairness and consistency, but in order to accomplish the goals of protecting  
3 consumers and advancing competition some modifications to create greater  
4 clarity and detail are necessary.

5

6 Q. What changes do you support?

7

8 A. First, I believe that consensus that the burden of proof is on the Affected  
9 Utilities should be incorporated more fully in the rules.

10

11 It is fundamental to the whole issue of Stranded Costs to note that there is  
12 a valid debate over the legal right of the Affected Utilities to recovery of full  
13 stranded costs. I am not an attorney and will not testify on legal matters. I can  
14 report, however, that several state utility commissions have found in their  
15 investigations that utilities do not have that right. Beyond the legal issues,  
16 which are outside my area of expertise, I can say that, based on thirty-five years  
17 of professional work in utility finance and theory, I find the claim of a  
18 "regulatory compact" as proposed by the Affected Utilities to be a weak  
19 justification for granting stranded costs. Even if the claim of a regulatory  
20 compact were accepted it is not a justification for requiring customers to pay  
21 100% of any stranded costs. I will discuss this further in responding to the  
22 Commission's Issue 3.

23

24 Q Are there other issues regarding the rules that you believe require  
25 clarification?

26

27 A Yes. In regard to rule R14-2-1607 K: "The Commission may order an  
28 Affected Utility to file estimates of Stranded Cost and mechanisms to recover or,  
29 if negative, to refund Stranded Cost."

30

31 Q. What is your recommendation?

32

33 A. I recommend that the Affected Utilities file stranded cost estimates and  
34 associated work papers as soon as possible, and before the Commission finishes  
35 taking testimony in this Docket. The Affected Utilities filings should show, in  
36 addition, the impacts on the rates of the various customer classes which would



1 result from the interaction of the estimates and the Affected Utilities policy  
2 recommendations.

3  
4 This filing would provide vital perspective to this discussion and give the  
5 Commission, Staff, intervenors, and Affected Utilities a clearer sense of the  
6 impact of policies and rules. Prior to the Commission adopting policy with  
7 respect to "stranded costs" it is entitled to have, and must have, a clear  
8 understanding of the impacts, in dollar terms, on customer bills.

9  
10 The Commission and staff, as well as the intervenors and Affected Utilities  
11 will be much more effective in presenting arguments regarding policies on  
12 methodologies of calculation or mitigation, or recovery of stranded costs with a  
13 clear sense of the relative impacts. The public's acceptance of any Commission  
14 decision is much more likely if it can be shown that the Commission had a good  
15 understanding of the impact of the policies it adopted.

16  
17 Later in my testimony I will discuss more fully the interaction of certain of  
18 the issues before the Commission in this Docket. Let me offer here one example  
19 of the problem of adopting complicated policy without knowing the impacts.  
20 Suppose that the Commission adopts a fairly short period for the recovery of  
21 "stranded costs" in response to Issue 5, the question of the limitation of recovery  
22 time. ~~And suppose that, at the same time, the Commission adopts a policy for~~  
23 the recovery of "stranded costs" that turns out to be a large dollar amount for a  
24 particular utility. In that event it may turn out that customers bills will jump  
25 sharply, which is clearly neither a desirable nor an intended result.

26  
27 At this point the Affected Utilities may differ, and other parties may differ,  
28 on various categories to be included or methods to be employed. Having dollar  
29 estimates included as part of the discussion is essential to clarifying the relative  
30 magnitude of impacts and what tradeoffs or compromises may need to be made.  
31 Examination of differing methodologies would also help to advance the  
32 considerations undertaken in this proceeding. Without quantifying stranded  
33 costs, even if in the form a preliminary estimate, there is no ability to gauge the  
34 fairness or impacts on competition that should guide policy-making.

35  
36 Q. What is your response to concerns that such information is proprietary?

1  
2 A. It is clear that the information must be provided to the Commission at  
3 some point. Confidentiality agreements and protective orders can be used to  
4 deal with proprietary information. The issue is when it is needed. In my view it  
5 is needed now, before policy decisions are made.  
6

7 I would be surprised, furthermore, if the Affected Utilities have not  
8 already produced their own estimates or ranges of estimates. And since the  
9 utilities will have to produce estimates soon, in any event, they should be  
10 produced for this Docket, when they can inform policy decisions.  
11

12 Much of the data required to provide estimates of stranded cost for any  
13 given utility is available in public documents and from industry sources. Both  
14 financial analysts and major competitors have already conducted competitive  
15 assessments, including stranded cost assessments of most utilities. As noted by  
16 the Staff, Fitch Investor Services, Moody's and Resource Data International,  
17 among others have produced such estimates. Delay in having the Affected  
18 Utilities provide their own estimates, and including those estimates as part of  
19 discussions on methods of calculation, mitigation, and recovery interferes with  
20 policy-making. Within the Working Group, moreover, consumer representatives  
21 supported filing of stranded cost estimates as part of this discussion.  
22

23 Q. Do you recommend other changes?  
24

25 A. Yes. Regarding rule R-14-2-1607 B which states: "The Commission shall  
26 allow recovery of unmitigated Stranded Cost by Affected Utilities." In both this  
27 rule and subsection G, I believe it is important to change the term "unmitigated"  
28 to "unmitigable." Rule R-14-2-1607 A makes very clear the Commission's intent  
29 that the Affected Utilities undertake "every feasible, cost-effective measure to  
30 mitigate or offset Stranded Cost." In order to assure that this level of effort  
31 occurs, any stranded cost should be determined to be unmitigable, not just  
32 "unmitigated." This change is much more than one of semantics. It implies that  
33 there will be active determinations concerning the process and level of effort,  
34 rather than utility determination and submission or what is "unmitigated." It  
35 could also help to set up clear categories and standards for what is indeed  
36 unmitigable. The process should not be one in which one Affected Utility has an

1 "unmitigated" element which another has resolved. I believe the Commission  
2 and Staff would benefit from working toward standards of "unmitigable"  
3 stranded cost.

4  
5 Perhaps most important, this change would emphasize that the burden of  
6 showing the level of effort and success rests with the utilities, rather than on the  
7 Commission or intervenors to demonstrate that not every measure possible has  
8 failed to be achieved.

9  
10 Q. What is your position in regard to proposals to change the rules to limit  
11 the Arizona Corporation Commission's (ACC) review of efforts to mitigate or  
12 offset stranded costs?

13  
14 A. Rule R14-2-1607 A says that the "Affected Utility shall take every feasible,  
15 cost-effective measure to mitigate or offset Stranded Cost by means such as  
16 expanding wholesale or retail markets, or offering a wider scope of services for  
17 profit, among others." This rule should not be modified in any manner that  
18 would limit the scope of the ACC's review and injure the interests of consumers  
19 and the viability of competition. In answer to the questions in Issue 9 I discuss  
20 this and provide some examples.

21  
22 Q. Besides any points you will make later in discussing Issue 9, what support  
23 do you offer for this position on Rule R14-2-1607 A?

24  
25 A. There is a general recognition that recent regulatory reform has released  
26 constraints on vertical and horizontal diversification of public utilities. Not all of  
27 these efforts are profitable, or as profitable as the regulated business.

28  
29 Q. How does this affect consumers?

30  
31 A. The financial viability of a company influences its access to capital and the  
32 cost of that capital. This has a direct impact on consumers. If losses are large, the  
33 Commission, consumers, and other public bodies may be called upon to assist  
34 the utility financially. Since the customers of the regulated utility, and the same  
35 customers as taxpayers might be at risk for the non-regulated business

1 enterprises of a utility, the Commission must be able to maintain a broad scope of  
2 review as currently indicated in R14-2-1607 A.

3  
4 Q. Are there any other modifications in the rules which you would oppose?

5  
6 A. Yes. Rule 14-2-1607 J states "Stranded cost may only be recovered from  
7 customer purchases made in the competitive market using the provisions of this  
8 Article. Any reduction in electricity purchases from an Affected Utility resulting  
9 from self-generation, demand side management, or other demand reduction  
10 attributable to any cause other than the retail access provisions of this Article  
11 shall not be used to calculate or recover any Stranded Costs from a consumer."  
12 While there has been support given to assuring that all consumers pay their fare  
13 share of any stranded cost burdens, this rule should not be altered in a manner  
14 that allows the shifting of cost burdens, either from the utility to consumers , or  
15 between classes of consumers. This rule should also not be modified in a manner  
16 that bypasses the validity of franchise contracts held by local governments and  
17 raises both statutory and constitutional obstacles. Nor should it be altered in a  
18 manner that would stifle self-generation, demand-side management, or the other  
19 goals which the Commission supports.

20  
21 Q. What modification of this rule do you propose?

22  
23 A. I would recommend minor alteration of the first sentence in a manner that  
24 provides discretion to the Commission as implied in the remainder of the rule.  
25 Specifically I would strike the fourth word, "only," so that the rule would read

26  
27 ""Stranded cost may be recovered from customer purchases made in the  
28 competitive market using the provisions of this Article. Any reduction in  
29 electricity purchases from an Affected Utility resulting from self-  
30 generation, demand side management, or other demand reduction  
31 attributable to any cause other than the retail access provisions of this  
32 Article shall not be used to calculate or recover any Stranded Costs from a  
33 consumer."

34  
35 Q. What will this change accomplish?

36

1 A. This change will avoid significant obstacles and give the Commission  
2 flexibility to assure that there will be no cost shifting. It will provide also a firm  
3 basis for subsequent efforts to define this goal within the development of tariffs  
4 for distribution and transmission, as well as demand, energy, and access charges  
5 for "standard offer" and competitive consumers prior to market competition.  
6

7 Q. Are there other issues regarding the rules that you would like to address?  
8

9 A. There are two remaining issues that are vital to consumer protection and  
10 the meaning of the transition to a competitive market. The first is that economic  
11 savings on electric rates should not be shifted to increase tax burdens. It does not  
12 make sense for consumers to fund savings from electric rates with increases in  
13 their tax bills. Any guidance from the rules should assure that there are neutral  
14 impacts on tax revenue streams.  
15

16 **Issue 2. When should "Affected Utilities" be required to make a "stranded**  
17 **cost" filing pursuant to A. A. C. R 14-2-1607?**  
18

19 Q. When should "Affected Utilities" be required to make a "stranded cost"  
20 filing pursuant to A. A. C. R 14-2-1607?  
21

22 A. The Affected Utilities should be required to make a "stranded cost" filing  
23 immediately, during this Docket, so that the Commission's decision can be  
24 informed by the estimates presented. Please refer to my earlier testimony on this  
25 rule, on beginning on page 5, for elaboration on this point.  
26

27 **3. What costs should be included as part of "stranded costs" and how**  
28 **should those costs be calculated?**  
29

30  
31 Q. What costs should be included as part of "stranded costs"?  
32

33 A. There are two levels at which to consider this question.  
34

1 Q. Let's take them one at a time. What is the first level?

2

3 A. The first level addresses the issue of whether or not the utilities have  
4 already been compensated for the risk that there would be "stranded cost."

5

6 The issue here is empirical: Has the Commission in a past decision or  
7 decisions on rate of return provided a risk premium which compensated a utility  
8 for the risk of a change in the regulatory regime. If the Commission in a past  
9 decision has required the customers to cover the utility's risk, it cannot ask the  
10 customers to pay a second time for the risk in "stranded costs."

11

12 Q. Before explaining further, please explain how this empirical question  
13 should be resolved.

14

15 A. As I said, this is an empirical question. What is needed to resolve it is a  
16 review of past Commission decisions on rate of return. Obviously if there is  
17 explicit Commission language that the utility in question was being compensated  
18 through a premium on rate of return for bearing the risk that output from its  
19 plants would be unmarketable at remunerative rates, that would answer the  
20 question. Explicit language is not necessary, but the absence of it makes the  
21 empirical research more difficult and perhaps problematic. The absence of  
22 explicit language requires an examination of the record in an effort to discern if  
23 the Commission gave a risk premium for the risk being discussed in this Docket,  
24 i. e. the risk of stranded cost as a result of a change in the regulatory regime.

25

26 The portion of a rate case which addresses the rate of return a utility is to  
27 be allowed is typically referred to as the "cost of capital" proceeding. The  
28 Commission identifies the cost of debt and the cost of equity. Usually on the  
29 equity portion of the total capital the return is higher than the return on the debt  
30 portion of the capital structure. The reason for the higher return on equity is that  
31 the shareholders are at higher risk than the bond holders.<sup>1</sup>

32

33 The empirical question that must be answered is what risk (or risks) has  
34 the Commission acknowledged when it allowed a specific return (or range of

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<sup>1</sup> Bondholders have accepted risk as well, of course, otherwise the interest rate on an electric utility mortgage bond would not be higher than on a U. S. Treasury bond.

1 returns) on equity? Certainly there are risks of sales not reaching the forecasted  
2 level, the risk of spikes in fuel costs, and so on. But part of the premium allowed  
3 for risk may in fact have paid the shareholders for the risk of a changing industry  
4 structure.

5  
6 To the extent that the shareholders have been compensated for bearing the  
7 risk of a change in the regulatory regime, they should not be compensated a  
8 second time for "stranded costs."

9  
10 Q. What is the second level in answering what cost should be included as  
11 part of "stranded cost"?

12  
13 A. The second level to consider is whether "stranded cost" should include  
14 anything at all, above what has already been compensated for. This is the issue  
15 of whether or not a "regulatory compact" requires Commissions to award utilities  
16 full recovery of stranded cost. The Report of the Stranded Cost Working Group  
17 asserted that:

18  
19 "While some absorption by the Affected Utilities' investors would  
20 undoubtedly reduce the stranded cost burden for consumers to ultimately  
21 bear, the Staff is unaware of any legal or regulatory basis for doing so.  
22 Presumably the prudence of expenditures underlying existing service  
23 rates has been established and there is no legal opportunity for a  
24 revisiting."<sup>2</sup>

25  
26 Framing the issue as the staff has done in that statement improperly  
27 reduces the discussion to the question of "prudence" and whether prudence can  
28 be revisited. The issue is not prudence but rather whether or not a "regulatory  
29 compact" exists which requires the Arizona Corporation Commission to give the  
30 affected utilities 100% of "unmitigated stranded cost" as R14-2-1607 B. seems to  
31 say.

32  
33 My view, based on experience on Wall Street beginning in 1962 and  
34 continuing as a student of public utility regulation until today, is that there is and

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<sup>2</sup> Report of the Stranded Cost Working Group, Sept. 30, 1997, page 49

1 has been no "regulatory compact" which would guarantee 100% recovery of  
2 unmitigated stranded cost under the circumstances of deregulating generation.

3  
4 So far as I know, the phrase a "regulatory compact" did not appear in *economic*  
5 printed books and articles until deregulation and the issue of stranded cost  
6 became important to utilities. My conclusion is that the notion of a "regulatory  
7 compact" is a recent invention which is used to, but does not, justify "stranded  
8 cost."

9  
10 My memories of concerns held by utility investors, security analysts, and  
11 electric utility executives explicitly includes concerns about competitive threats  
12 from new technology -- including, even in the early 1960s, natural gas-fired self  
13 generation and co-generation, fuel cells, photovoltaics, as well as black boxes yet  
14 to be invented. Included in these concerns was the fear that customers would  
15 entirely leave electric systems for self-generation. I recall no discussion that a  
16 regulatory compact would protect the shareholders from such competition. The  
17 most outstanding and useful book on utility economics was and is Bonbright's  
18 Principles of Utility Rates.<sup>3</sup> Bonbright does discuss competitive threats to  
19 earnings but does not mention a "regulatory compact" in a very thorough book.

20  
21 One of the leading advocates of the idea of the "regulatory compact" is  
22 Professor Alfred Kahn, often credited as the father of airline deregulation. Dr.  
23 Kahn wrote a two volume book, published in 1970,<sup>4</sup> which covered utility  
24 regulation in detailed fashion. Although Dr. Kahn's book is very detailed he  
25 curiously omits mention of something as important as he now asserts the  
26 regulatory compact to be. I have reviewed other assertions that the regulatory  
27 compact requires Commissions to afford the recovery of 100% of "stranded cost"  
28 and am not persuaded that there is an historical basis for the assertion.

29  
30 Q. If there is no regulatory compact, is it your testimony that the utilities  
31 should be denied all stranded cost?  
32

<sup>3</sup> Principles of Public Utility Rates, James C. Bonbright, Columbia U. Press, N. Y., 1961. (Do not confuse this with a different and trivial book which is marketed as the 2nd edition of Bonbright's work. It is not the same book and is not useful.)

<sup>4</sup> The Economics of Regulation: Principles and Institutions, John Wiley & Sons, Inc., New York, 1970



1 A. No. I am asserting that the Commission is not required by a regulatory  
2 compact to grant the utilities 100% of "stranded cost." What this means is that the  
3 Commission, if it finds that in fact there are stranded costs for one or more  
4 Arizona utilities, can make a judgment about how those costs should be  
5 apportioned between customers and investors.

6  
7 Q. Let's turn to the second part of the Commission's issue 3, which is the  
8 question of how should stranded costs be calculated. What methods does the  
9 Stranded Cost Working Group mention?

10  
11 A. The Report mentions, on page 19, what it calls two administrative  
12 methodologies and two "market-based approaches. The first two are the "Net  
13 Revenues Lost" and the "Replacement Cost Valuation." The market-based  
14 approaches are "Auction and divestiture" and "Stock Market Valuation."

15  
16 Q. Please address the administrative methodologies, the "Net Revenues Lost"  
17 and the "Replacement Cost Valuation." Which of these do you favor, and why?

18  
19 A. The "Replacement Cost Valuation" approach, changed in the way I will  
20 describe, is clearly superior. The "Net Revenues Lost" has serious problems, both  
21 theoretical and practical.

22  
23 Q. Please discuss the "Replacement Cost Valuation" approach and tell how  
24 you would change it from the way it is described in the report of the Stranded  
25 Cost Working Group.

26  
27 A. Stranded costs, either positive or negative, arise because of a difference  
28 between the cost to serve on an embedded cost of service basis and what costs  
29 would be, or would be expected to be, in an unregulated market. Given the basis  
30 for stranded costs, either positive or negative, it seems reasonable to approach  
31 the calculation by trying to identify what the difference between embedded costs  
32 and unregulated costs would be.

33  
34 An asset-by-asset approach can take into account the competitive merits  
35 of a particular generating asset. The calculation then becomes very specific,  
36 looking at a particular plant to see if it is (or will be) below cost or above cost in

1 the expected unregulated market. Among other things, a plant might have  
2 locational advantages that makes it more valuable compared to another of the  
3 same type, fuel, and age. An older hydro electric plants might be below the  
4 average cost of generation in a future unregulated market.

5  
6 The Stranded Cost Working Group, in its Report dated September 30,  
7 1997,<sup>5</sup> put forward one calculation methodology, "Replacement Cost Valuation,"  
8 that is an asset-by-asset approach but which needs some alteration to result in  
9 what will be a reasonable way to calculate stranded costs.

10  
11 Q. What alterations do you feel are important?

12  
13 A. The "Replacement Cost Valuation" approach, to quote from the Report,  
14 computes stranded costs

15  
16 "... on a bottom up basis, as the difference between the reported net book  
17 value of generation assets and their current replacement value (a proxy for  
18 market value) based on the most cost-effective technology available in the  
19 market, a gas-fired combined cycle combustion turbine."<sup>6</sup>

20  
21 We should recognize first that each generating unit is not going to be  
22 replaced by a new combined cycle combustion turbine (CCCT). To assume that  
23 each plant is going to compete head-on with a new CCCT plant would result in a  
24 substantial overstatement of stranded cost. Price in the market will not be driven  
25 by the lowest cost unit but rather by the most expensive unit that actually gets  
26 dispatched. The difference is likely to be enormous.

27  
28 It is also important to recognize that any price drop in electricity following  
29 a deregulation of generation will occur because of excess capacity . The drive for  
30 deregulation is fueled by excess capacity in the Western United States. Excess  
31 capacity is a temporary phenomena that is corrected when expansion of capacity  
32 is slowed or halted, or plants are mothballed while demand grows. Utility

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<sup>5</sup> Report to the Arizona Corporation Commission, in the matter of the competition in the provision of electric service throughout the State of Arizona, Docket No. U00000-94-165, Submitted by the Stranded Cost Working Group, September 30, 1997.

<sup>6</sup> Report, page 22.

1 earnings are always burdened when they have excess capacity. A special  
2 provision for "stranded cost" should not be made as a result of excess capacity.

3  
4 Q. What are the implications for the calculation of stranded cost of the  
5 existence of excess generating capacity in the Western United States?

6  
7 A. When new capacity is to be built is a separate critical element in  
8 determining stranded cost. The existence of excess generating capacity means  
9 that new power plants will not be built in significant numbers until the excess is  
10 reduced. Stranded cost calculations should reflect an assessment of when and  
11 in what number new CCCT plants might be build.

12  
13 Q. Why is "when" new capacity is added important in the stranded cost  
14 calculation?

15  
16 A. Any payment for stranded cost should not be because of a cyclical  
17 problem of excess capacity but rather because of a permanent change in  
18 institutional arrangements.<sup>7</sup> It seems clear that some generating plants in the  
19 Western United States will be high cost relative to the market during periods of  
20 excess capacity. But if and as excess capacity is reduced because of retirements  
21 and/or growth in demand, the market price will rise to reflect that. Plants that  
22 were unable to financially compete during the capacity glut would now be  
23 profitable. Stranded costs should not be afforded to cover a cyclical problem and  
24 any calculation should reflect that.

25  
26 Q. Do you recommend other changes in the details of the bottom-up  
27 approach described in the Stranded Cost Working Group report?

28  
29 A. Yes. A key element in the bottom-up calculation of stranded cost is the  
30 estimated price of an efficient new power plant. Any price quotes for new  
31 capacity must be both scrutinized and then adjusted for market conditions in the  
32 turbine manufacturing industry.

33  

---

7 I want to stress here that I am discussing the calculation of stranded cost in the abstract. This discussion does not imply that any stranded costs are justified.

1       The Stranded Cost Working Group posited gas turbines as the type of  
2 capacity that will be added in the future in the electric power industry -- the  
3 CCCT machine.<sup>8</sup> The Commission, however, should not take, for purposes of  
4 calculating stranded costs, today's price quotes as if they would be available  
5 indefinitely, or even drop from today's depressed levels. The turbine market is  
6 itself plagued at the moment with over-capacity and prices for CCCTs are  
7 depressed.

8  
9       Reuters, in September, 1997 reported what those familiar with the power  
10 industry already knew, that there is over capacity in the turbine business, that a  
11 shakeout is likely, to be followed by a price rise. ABB, Asea Brown Boveri, is the  
12 world's largest power engineering group. Armin Meyer, worldwide head of  
13 ABB's Power Generation division, said in an interview with Reuters that he  
14 expects a shakeout in the power generation business in the next two years with  
15 not more than six firms surviving. "I see further moves in the industry and  
16 smaller companies disappearing," Meyer said, adding: "There is no way around  
17 it but that capacity in our business has to be reduced."<sup>9</sup>

18  
19       A subsequent report on a Westinghouse restructuring noted that:

20  
21       "The utility industry, which is in the early stages of deregulation, has  
22 reduced orders for new generators, and delayed maintenance on old ones.  
23 Power -generating sales were off by 29 percent in the first half, from the  
24 first six months of 1996, ... "<sup>10</sup>

25  
26       Since that item appeared Westinghouse has sold its non-nuclear power  
27 generation business to a competitor. Low prices for CCCTs today reflect excess  
28 capacity in that industry, with higher prices to follow if demand for the units  
29 increases and a turbine industry shakeout has occurred. A calculation of  
30 stranded costs in electric power must be adjusted so that a cyclically low price in

---

<sup>8</sup> Report, page 22. There is a widespread industry view that the CCCT will be the overwhelming choice for future capacity additions. We should note, however, that some expect baseload coal plants to be built. Any actual calculations should reflect a careful assessment of what the most cost effective technology is likely to be, and the price of electricity resulting from investment in such capacity.

<sup>9</sup> September 16, 1997.

<sup>10</sup> The New York Times, October 11, 1997.

1 the turbine market does not unjustly result in a windfall for shareholders of a  
2 utility.

3  
4 Q. Assuming that a CCCT is the "most cost-effective technology available in  
5 the market" as the Report asserts, and the price of a CCCT has been correctly  
6 adjusted for the business cycle in turbines, are other adjustments also necessary  
7 in order to reach the correct value for this calculation?

8  
9 A. Yes. Even after calculating a value, or range of values for cost of the  
10 output of the most efficient technology, we will not yet have calculated the price  
11 of electric power. Price and cost are not the same thing.

12  
13 Beginning economic textbooks show that under perfect competition  
14 prices will be driven down to the level of the most efficient firm. Less efficient  
15 firms lose markets to the more efficient, and must strive to become more efficient  
16 themselves. That is how and why consumers are said to be better off with  
17 "competition."

18  
19 Presumably the process of deregulation lets low-cost providers force  
20 prices lower. The airline industry is often mentioned as an example of how this  
21 process works. But in non-regulated industries prices charged depend less on  
22 costs than on "what the traffic will bear." It is instructive to compare costs and  
23 prices in the airline industry to see if prices are tied to costs.

24  
25 Figure 1 shows an index of airline fares from 1978 through 1996 provided  
26 by the Bureau of Labor Statistics.<sup>11</sup> On the same graph is plotted the "Airline  
27 Cost Index" developed by the Air Transport Association.<sup>12</sup> What comes through  
28 clearly in Figure 1 is the ability of the airline industry to raise prices faster than  
29 costs given two conditions. The first is the gradual elimination of excess  
30 capacity, and the second is the strong economy of the last few years. The first  
31 condition reduced supply relative to demand, the second led to increased

---

<sup>11</sup> Airline Fares, Consumer Price Index, All Urban Consumers (CPI - U), U. S. City Average, 1982-84 = 100.

<sup>12</sup> Airline Cost Index, Air Transport Association, First Quarter 1997, Washington, D. C. 1982 = 100. Note the slight difference in the base year for this index vs. the CPI.

demand. Preliminary figures suggest that the spread between costs and prices has widened even further in 1997.<sup>13</sup>

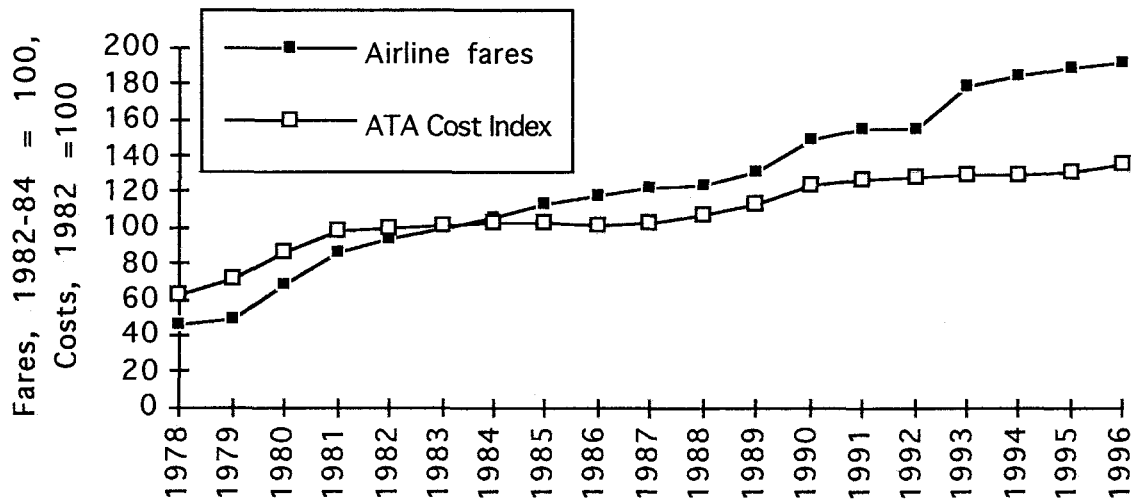


Figure 1.

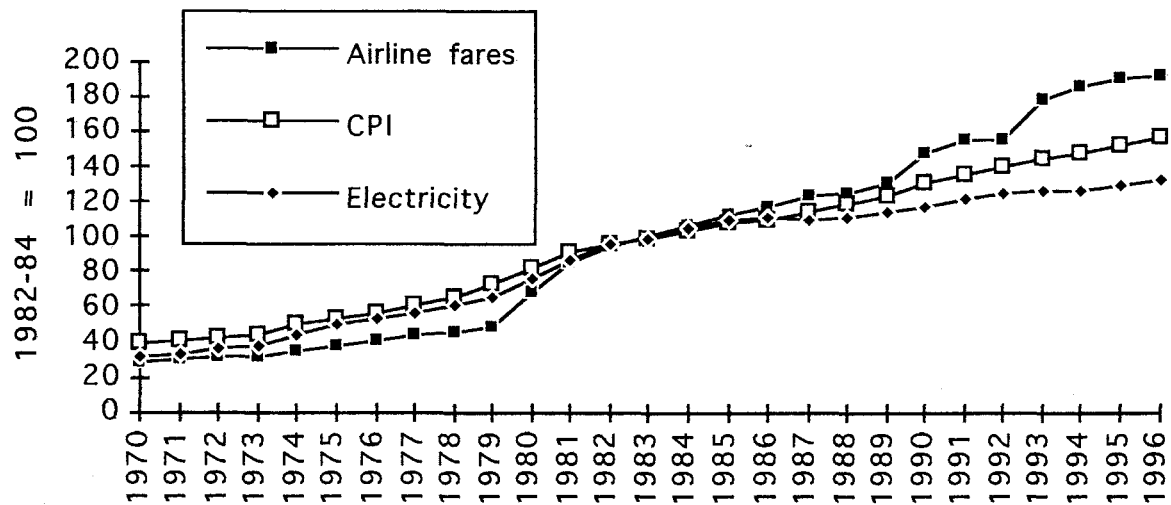


Figure 2.

<sup>13</sup> Although it is off this point, Figure 2 is supplied to show the relationship of airline fares to electricity prices and the consumer price index. All data in Figure 2 is from Bureau of Labor Statistics indices for Airfares, Electricity, (U. S. City average) and for All Items. Base of 1982-84 in each case.

1  
2  
3 Q. Can you explain why prices and costs diverge?  
4

5 A. Yes. Prices are higher than costs when the vendor is able to charge higher  
6 prices. Let me explain. First I will make a distinction between average cost and  
7 marginal cost, and I will limit my context to generation plant. My goal here is to  
8 advance the discussion rather than to give an economist's technically precise  
9 definitions. Marginal cost we can crudely define as the cost of the output from  
10 the next low cost unit to be added to the grid. Average cost is the cost of  
11 production of a kilowatt hour from all the plants supplying the grid.  
12

13 Against the background of this definition we can see that the idea found in  
14 the section of the Stranded Cost Working Group Report supporting the "Net  
15 Revenues Lost" approach is a profound misconception. The passage I refer to  
16 says

17 The "Net Revenues Lost" approach is a top-down quantification  
18 method that compares the expected future annual revenue requirements  
19 for the affected utility's generation business under traditional cost-based  
20 regulation with the annual revenues expected to be recovered in a  
21 competitive generation market with prices based on marginal cost.<sup>14</sup>  
22 (emphasis added)  
23

24 It is not really possible for prices in the electric generation business to  
25 equal marginal cost.<sup>15</sup> For if marginal cost is lower than average cost, setting  
26 price equal to marginal cost means you lose money on every unit sold!  
27

28 Q. Doesn't economic theory tell us, however, that when price is higher than  
29 Marginal Cost new entrants will come in to drive price down?  
30

31 A. The modern branch of economics called Game Theory offers a much richer  
32 explanation of pricing in an industry with the cost characteristics of electric

---

<sup>14</sup> Report, page 20.

<sup>15</sup> I acknowledge that the words are "prices based on marginal cost," not "prices equal to marginal cost." If the intended meaning of the former phrase is not the latter, clarification is required.

1 generation. A leading theorist from the University of Chicago, Professor Lester  
2 G. Telser, writes:

3  
4 One of the principal conclusions from these applications of core  
5 theory to economics is the central importance of the nature of the cost  
6 conditions. Unless the firms in the industry are small and numerous, a  
7 neoclassical perfectly competitive equilibrium cannot exist. Specialization,  
8 fixed costs, and indivisibilities give a stable equilibrium only with  
9 restrictions on which coalitions may form.<sup>16</sup>

10  
11 In contrast with perhaps most economists, the leading game theorists  
12 recognize that in an industry with huge capital requirements relative to revenue,  
13 as electric generation is, "competition" in the simple textbook sense cannot work  
14 to produce economic efficiency. Many of these theorists advocate relaxing anti-  
15 trust laws to make collusion legal in such industries.

16  
17 Q. Do you have a recommendation for the Commission in connection with  
18 this?

19  
20 A. Yes. The Commission needs to look beyond the theory offered in  
21 beginning texts and consider what will actually unfold in the electric power.  
22 ~~What is in prospect is oligopoly pricing. There is about 156,000 mW of capacity~~  
23 available at the time of the summer peak in the Western System Coordinating  
24 Council (WSCC).<sup>17</sup> New CCCT plants are discussed in the 400 mW size range.  
25 The cost of such a plant at today's distressed prices might be \$400-\$550/kW, or  
26 more, plus an additional amount for transmission connection to the grid. I will  
27 use a number of \$550/kW, including transmission for purposes of illustrating my  
28 point.

29  
30 A 400 mW plant, at \$550/kW, would cost \$220,000,000. Adding a 400 mW  
31 plant is not likely to affect the price of electricity in the West. Adding ten such  
32 plants, at a cost of \$2,200,000,000, i. e. 2.2 billion dollars would be only an

---

<sup>16</sup> Economic Theory and the Core, Lester G. Telser, Univ. of Chicago Press, Chicago, 1978, page 90.

<sup>17</sup> See Economic Analysis Subcommittee Report to the Public Service Commission of Utah, Docket No. 96-999-01, September 4, 1997, p. 25.



1 addition of less than 3% to the total capacity in the WSCC. Such an investment  
2 would not have a significant impact on the price of electricity in the West.

3  
4 Q. What are the implications of your numerical discussion?

5  
6 A. The price of electric power is not going to be driven down to the cost of  
7 the output from "the most cost-effective technology available." Consequently  
8 calculating stranded cost by comparing the cost of output from an existing plant  
9 to the cost from the most cost-effective technology available would substantially  
10 overstate the stranded cost and hence be unfair to those burdened with paying  
11 any stranded cost.

12  
13 Q. Won't competition among the owners of existing power plants drive  
14 prices down?

15  
16 A. That remains to be seen. There will be companies in financial distress, or  
17 close to it, which will find it necessary to sell power at any price that will cover  
18 out of pocket expense plus a little more as a contribution to overhead costs. The  
19 rule here is that it is better to lose some of your overhead costs on each kWh sold  
20 than to lose all of it by not selling the kWhs. On the other hand, it is in no  
21 vendor's interest to participate in a price war, and after some (perhaps brief)  
22 period of shakeout, power plants will come into stronger hands and prices will  
23 be stabilized at a profitable level. The Commission must compare this level to  
24 the costs of the utilities under its jurisdiction in the calculation of stranded costs.

25  
26 A recent real-world reflection that the market may unfold differently than  
27 the textbook description is found in a Montana Power Company press release.  
28 The Montana Power Company announced on December 9, 1997 an offer to sell its  
29 Montana generation. Mr. Robert P. Gannon, Montana Power's chief executive  
30 officer and chairman-elect discussed factors leading to the decision to sell in the  
31 Company's press release:

32  
33 "We also believe that the size and geographic presence necessary to  
34 compete successfully in the dynamic, evolving competitive generation  
35 market means that only the larger companies will have a sustainable  
36 competitive advantage, despite our earned reputation as a relatively low-

1 cost generator or electricity. So Montana Power will focus even more on  
2 its core strength of customer service.

3  
4 Finally, energy prices in the future will be determined by competition and  
5 may be more or less than the actual costs of generation; that risk is better  
6 taken by larger companies who are concentrating on generation."<sup>18</sup>

7  
8 Q. What inference do you draw from Mr. Gannon's remarks?

9  
10 A. I believe the quote shows that he recognizes that prices for electric power  
11 are not going to be determined by simple textbook "competition" but rather by  
12 the interaction of powerful players as they accommodate to each other.

13  
14 In my view an expectation of oligopoly pricing must be a factor in the  
15 calculation of stranded cost.

16  
17 Q., You say that the "Net Revenues Lost" approach has serious problems,  
18 both theoretical and practical. Please discuss the "Net Revenues Lost" approach.

19  
20 A. The biggest problem with this approach is that it is based on a profound  
21 misunderstanding of utility regulation. This method starts with developing the  
22 revenues that the utility would have received under continued regulation over  
23 the life of the assets in question. This approach assumes that there would have  
24 been no changes in the economy, technology, society, etc., over a long period of  
25 years.

26  
27 When the Commission permits rates intended to afford the utility an  
28 opportunity to earn a fair return, it takes into account the cost of capital, both  
29 debt and equity as I earlier discussed. For both of these components of the  
30 utilities capital structure there is a risk premium in the figure allowed by the  
31 Commission. The mortgage bond lenders are not guaranteed that the bonds will  
32 be sound over their life of perhaps thirty years. The bond buyers take a risk that  
33 the industry will be viable and that they will collect the interest and principal  
34 that hope for. Similarly the owners of common shares take a risk that the

---

<sup>18</sup> From Montana Power at WWW.mtpower.com.

1 company -- and the industry -- will continue to be healthy. They are paid to take  
2 that risk. The "Net Revenues Lost" approach proposes to absolve them of that  
3 risk.

4  
5 I earlier talked about how investors have long been concerned about risk  
6 in this industry. Other solid industries have shrunk or disappeared. The most  
7 common example is the street railway industry, once thought to be very solid. It  
8 seems to me that now making the assumption that there was no risk of major  
9 changes over the life of long-lived assets is a mistake.

10  
11 Beyond the industry risks, there is the risk, to take an obvious example, of  
12 a failure at a nuclear plant, either catastrophic or not. Nuclear units have been  
13 closed well before their original expected life because the required investment to  
14 keep them economically viable was too high. Such plants are no longer "used  
15 and useful." The "Net Revenues Lost" approach assumes away such problems  
16 and would pay "stranded cost" over the assumed life of an asset for which there  
17 is no assurance of reaching that life.

18  
19 Q. Is it not possible to make adjustments for the problem you have  
20 discussed?

21  
22 A. It is, but then you are simply starting with a figure and making arbitrary  
23 and obviously controversial judgments about how to adjust. I recommend that  
24 this approach not be used.

25  
26 Q. Please discuss the market-based approaches.

27  
28 A. The market based approaches have the distinct appeal of producing an  
29 actual transaction, in contrast with the with what the Report calls  
30 "administrative. But the appeal is to a great extent superficial.

31  
32 The more attractive market approach is the "auction and divestiture,"  
33 under which the generating assets would actually be put on the market for bids,  
34 and sold. A clear price would be paid by a "willing buyer," a valuation method  
35 which has strong support. Some plants have already been auctioned in New  
36 England and California and have brought very strong prices. The high prices

1 (compared with book value) lead to the notion that perhaps stranded costs,  
2 particularly non-nuclear, are not significant after all. But special circumstances in  
3 each case offer caution. New England is a region with a capacity constraint  
4 because of nuclear problems, and the California auction may have brought  
5 higher than normal prices because of "must run" rules and the prospect of  
6 nuclear retirements in the relatively near future. Other considerations are that  
7 these early sales may bring high prices but that later one will not. Much remains  
8 to be sorted out, and theorized about how future auctions will unfold, but the  
9 auction approach does have significant appeal.

10  
11 One supposed attribute of the "auction and divestiture" approach is that it  
12 will, in addition, reduce or eliminate market power. My own view is that this is  
13 an unlikely benefit. The plants will go into strong hands which will eventually  
14 reach an accommodation with other financially solid power producers.  
15 Concentrated ownership is not the only way to reach market power. The airlines  
16 post their tariffs and tariff changes in a centralized with similarities to the  
17 California Power Exchange, and thus communicate in a way that the Wall Street  
18 Journal opines reduces competitive pricing:

19  
20 "Competitive pressures aren't likely to drive business fares down, thanks  
21 to Airline Tariff Publishing Co. ... ATPCO is owned by a group of 24  
22 international airlines, including the seven largest U. S. carriers.

23 ATPCO says its two mainframe computers create a perfect  
24 marketplace, akin to a gas-station owner being able to watch prices his  
25 competitor posts across the street."<sup>19</sup>

26  
27  
28 Q. Would you address the "stock market valuation approach"?

29  
30 A. Yes. This is described on page 26 of the Report. Utilities would be  
31 required to split their common stock into two new classes. Each existing share  
32 would be exchanged for one share of each new class, A and B. Class A shares  
33 would have the traditional stockholder rights and Class B shares would be a  
34 claim against any stranded costs. At some appointed date the stranded costs

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<sup>19</sup> The Wall Street Journal, Nov. 3, 190097.

1 would be computed by subtracting the market value of the Class A shares from  
2 the Net Book Value of the Company. A glaring problem is the assumption that  
3 the price of a share equals the book value. Utility shares often trade at a value  
4 above book, and sometimes at a value below book. In addition, how the stock  
5 market in the future will value stand-alone distribution and/or transmission  
6 utilities remains to be seen.

7  
8 This is a complicated financial approach which might not generate results  
9 which would be widely accepted. Another clear problem with this is the single  
10 moment in time on the stock market at which value would be revealed. Trading  
11 might be thin, or non-existent, and many external factors, including, for example  
12 interest rates, or problems in Asia might play an outsized role in the value on a  
13 particular day. I recommend that this approach be rejected.

14  
15 Q. Are there still other factors that need to be included in a calculation of  
16 stranded cost?

17  
18 A. Yes. Transmission rules and constraints need to be incorporated into the  
19 analysis. For purposes of reliability and voltage support some plants may be  
20 designated as "must run." There will be financial compensation associated with  
21 such a designation. This clearly was a factor in the California auction. A plant  
22 near a large load center may be worth more because of that fact than a similar  
23 plant located more remote from load. A specific study is required of the Arizona  
24 transmission system to determine if "must run" plants exist and whether the  
25 owners will enjoy a higher value as a result.

26  
27 Finally, to the extent that existing transmission opens up new  
28 opportunities in the unregulated market, the gains from that should be taken as a  
29 mitigation for stranded cost.

30  
31  
32 **Issue 4. Should there be a limitation on the time frame over which**  
33 **"stranded costs" are calculated?**  
34

1 Q. Should there be a limitation on the time frame over which "stranded costs"  
2 are calculated?

3  
4 A. I take this question to be related to a specific methodology, the "Net  
5 Revenues Lost" approach which I discussed in addressing Issue 3. The Staff's  
6 position, as discussed on pages 29 and 30 of the Report, is that the calculation  
7 horizon should stretch out to include all the years -- perhaps twenty or thirty  
8 years from now -- that a utility expected a generating asset to be producing  
9 energy for the market. I have already given my reasons for rejecting that  
10 approach. To briefly recapitulate, the risk of new technologies -- very small scale  
11 self-generation possibilities -- have always been an investor risk. The advent of  
12 technology which might shift the energy source for industry, commercial  
13 buildings, and the home, away from electricity has always been a threat to the  
14 utility investor and no Commission could, would, or should protect against it. If  
15 an agricultural pumper shifted from electricity to diesel or natural gas pumping,  
16 the Staff position would call the costs stranded and make other ratepayers make  
17 the utility whole. This assumes that utility investments were guaranteed by  
18 the ratepayers to be risk free! No such guarantee can be legitimately asserted.  
19 The Kyoto conference on global climate change and a possible Treaty casts a  
20 shadow over the long future the Staff position embraces.

21  
22 Q. ~~Would you address the question more broadly, not only with respect to~~  
23 ~~the single methodology?~~

24  
25 A. Yes. There is a tension between competing needs here that I want to bring  
26 out. The first need is for the Commission to consider a fairly extended time  
27 horizon as it watches developments in the industry. This time horizon is not  
28 related to the long-lived assets mentioned previously. The steady stream of  
29 mergers, acquisitions, auctions, and decisions in nearby and distant states, and  
30 the potential for Federal legislation shows the industry to be in a very uncertain  
31 period. Finalizing policy decisions is problematic in a time of flux like this one. I  
32 emphasize again, as well, the need to have estimates of stranded costs from the  
33 Affected Utilities prior to adopting policy. All this suggests a fairly extended  
34 time horizon for the Commission to consider.

1 The competing element in this tension is the need to limit the time over  
2 which "stranded costs" are calculated because in a fairly short time it will become  
3 difficult to sort out the effects on asset prices of changing the regulatory regime  
4 from the effects of general economic changes and technological developments.

5  
6 In addition to all the other elements the Commission must grapple with, a  
7 new one has now come into financial discourse. Chairman Greenspan of the  
8 Federal Reserve recently spoke of the possibility of deflation in our economy. He  
9 said, in part,

10  
11 Even if deflation is not considered a significant near-term risk for the  
12 economy, the increasing discussion of it could be clearer in defining the  
13 circumstance. Regrettably, the term deflation is being used to describe  
14 several different states that are not necessarily depicting similar economic  
15 conditions. One use of the term refers to an ongoing fall in the prices of  
16 existing assets. Asset prices are inherently volatile, in part because  
17 expected returns from real assets can vary for a wide variety of reasons,  
18 some of which may be only tangentially related to the state of the  
19 economy and monetary policy.

20 Nonetheless, a drop in the prices of existing assets can feed back  
21 onto real economic activity, not only by changing incentives to consume  
22 and invest, but also by impairing the health of financial intermediaries--as  
23 we experienced in the early 1990s and many Asian countries are learning  
24 now. But historically, it has been very rapid asset price declines--in equity  
25 and real estate, especially--that have held the potential to be a virulently  
26 negative force in the economy.

27 I emphasize rapid declines because, in most circumstances, slowly  
28 deflating asset prices probably can be absorbed without the marked  
29 economic disruptions that frequently accompany sharp corrections. The  
30 severe economic contraction of the early 1930s, and the associated  
31 persistent declines in product prices, could probably not have occurred  
32 apart from the steep asset price deflation that started in 1929.<sup>20</sup>  
33

---

<sup>20</sup> Remarks by Federal Reserve Chairman Alan Greenspan at the Annual Meeting of the American Economic Association and the American Finance Association, Chicago, January 3, 1998. The Wall Street Journal Interactive Edition -- January 3, 1998

1 A drop in the prices of existing assets stemming from deflation will be  
2 difficult to separate from a drop caused by changes in technology, a drop caused  
3 by investors perceptions of the future market for electricity, and a drop from a  
4 change in the regulatory regime.

5  
6 If the value of assets generally fall (for example peoples' homes and other  
7 real estate, office buildings and ranches, and so on, including utility generating  
8 assets) that cannot be considered as giving rise to "stranded cost." For this  
9 reason the Commission should put a clear limitation on the time over which  
10 stranded costs are calculated, so that the analysis does not get confused with  
11 changes in the general price level.  
12

13 **Issue 5. Should there be a limitation on the recovery time frame for**  
14 **"stranded costs"?**  
15

16 Q. Should there be a limitation on the recovery time frame for "stranded  
17 costs"?

18  
19 A. Resolution on this question should be deferred until the affected utilities  
20 have filed their estimates of what stranded costs will be. If the estimated costs  
21 are asserted to be large, then rates might have to go up as a result of the  
22 proposed change in regulation. If restructuring is going to require that  
23 consumers pay higher rates, the Commission should know that. The  
24 Commission should not lock itself into a policy without a clear understanding of  
25 the implications of its actions.  
26

27 Q. Why would rates rise because of restructuring?  
28

29 A. Current rates include, each month, the cost of depreciating the generating  
30 plant over its useful life. If the Commission now shortens the collection of that  
31 depreciation to, say five years, the monthly payment might jump. Similarly with  
32 other categories of stranded assets, if the period of collection is shortened.  
33



1 Q. California initiated on January 1, 1998, a 10% rate reduction for residential  
2 and small commercial customers, and the rates for other customers are expected  
3 to decline as well. Why shouldn't Arizona expect rates to decline in similar  
4 fashion?

5  
6 A. In California rates are frozen at a high level for small commercial and  
7 residential customers, except for the 10% rate reduction which the customers are  
8 forced to finance themselves. Rates would have declined more over this freeze  
9 period if restructuring had not been undertaken. There were significant drops in  
10 the costs of the regulated utilities clearly to be expected that would have resulted  
11 in lower rates. Rates would have dropped in California as the Commission  
12 adjusted them to the lower costs.

13  
14 Moody's Investors Service recognized the unique situation in California in  
15 a Special Report:

16  
17 "We believe that California's plan for recovery of approximately \$21  
18 billion in potential stranded assets is not exportable to most other states.  
19 In California, the three major investor-owned utilities, rated A1 and A2,  
20 have similar risk profiles. Their stranded cost exposure originates largely  
21 in high-cost, state-mandated purchased power contracts. These contracts  
22 ~~start to expire in 1997 and 1998, and the companies' costs will decrease as~~  
23 a result. The California legislation, AB 1890, freezes the companies' rates  
24 at current levels, minus a 10% discount for residential and small  
25 commercial customers, and allows the companies to use excess cash flow  
26 created by the difference between those rates and their lower future costs  
27 to pay down a goodly portion of the their above- market-priced fixed  
28 obligations. The situation elsewhere in the country is different. In other  
29 states, cost structures may not be trending downward as they are in  
30 California. Therefore, there will not be large amounts of excess cash  
31 available to pay down stranded investments.<sup>21</sup>

32  
33 Q. Please explain more fully the implications in setting the time frame for  
34 recovering "stranded costs."

---

<sup>21</sup> Special Report, Moody's Investors Service, February 28, 1997, page 1.

1  
2 A. In my view the Commission must fully take into consideration the impact  
3 on customers if and when it sets a time frame for the recovery of "stranded costs."  
4 This issue has political dimensions.

5  
6 In spite of the favorable cost situation for dealing with stranded costs in  
7 California, there is a consumer and political backlash growing against the actions  
8 of the California Public Utilities Commission and the state legislature. An  
9 initiative movement is underway to afford even lower rates for residential and  
10 small commercial customers. In addition, new legislation has been introduced  
11 by one of the leaders in passing AB 1890 who now wants to significantly revise  
12 the electric restructuring in California.

13  
14 Q. The California legislation, AB 1890, also included a provision for  
15 "securatizing" stranded costs through a bond issue. Cannot securitization assure  
16 a rate reduction for all customers?

17  
18 A. That depends on the mix of the dollar amount of stranded cost, the time  
19 period set for the recovery of stranded cost, and the length of the securitization  
20 bonds on which the customers are obligated to pay principal and interest.  
21 Payments can be lowered by stretching out the period. An analogy with a home  
22 mortgage is useful. The monthly payments on a 30 year mortgage are lower,  
23 other things being equal, than on a 15 year mortgage.

24  
25 What is going on with securitization is a two step dance in which the  
26 Commission accelerates the stranded cost from the normal depreciation period  
27 and then decelerates the payment by stretching it out over the life of the new  
28 bonds. The longer the life of the bonds, the higher the total burden on the  
29 customers. (And, most likely, the higher the interest rate that must be paid.) It is  
30 not clear, moreover, that the term of the securitization bonds can be stretched to  
31 any length necessary to finance a rate reduction. That is an empirical question.

32  
33 Q. Do you have additional remarks on the issue of the recovery time frame  
34 for "stranded costs"?  
35

1 A. In setting a time frame, customers will be better off if the payments are  
2 spread over a longer period. Those advocating a top-down approach to  
3 determining stranded costs would base their calculations of what the utilities  
4 would have earned over the expected life of the plant and equipment. Those  
5 advocates would be consistent in asking that customers pay the stranded cost  
6 over the same time period, which could be twenty or thirty years, with  
7 payments declining over time. At first glance that appears to minimize the  
8 customers burden, and adds some generational equity.

9  
10 Q. What do you mean by "generational equity"?  
11

12 A. If the stranded cost burden were set to be collected in a short period of  
13 time, the payments would be large each month until the end of that period.  
14 Consider a senior citizen who might make those large payments and then die.  
15 Such a customer would have paid off the stranded cost but not lived long enough  
16 to get any benefits that are supposed to flow from this restructuring.

17  
18 Q. Is there a reason to consider not stretching the recovery time over the long  
19 number of years associated with the useful life of the assets being stranded?  
20

21 A. Yes, two practical ones. We can expect any utility, confronted some years  
22 from now with new adverse circumstances will be back for another bite at  
23 stranded costs. I discussed this earlier in raising the possibility of deflation. To  
24 protect customers there should be a limit on the recovery period. On the utilities'  
25 side of the issue, a long, stretched out, period adds to the risk and thus to the  
26 cost.

27  
28 Q. Please summarize your recommendation on this issue?  
29

30 A. My recommendation is that this question should not be resolved by the  
31 Commission until after the affected utilities have made their filings on stranded  
32 costs and the Commission can get a sense of the impacts on customers of the  
33 policy being considered. In addition, the issue of securitization needs  
34 exploration and resolution.  
35

**Issue 6. How and who should pay for "stranded costs" and who, if anyone, should be excluded from paying for stranded costs?**

Q. Who should be excluded from paying for "stranded costs"?

A. Customers who had a right, prior to the restructuring of the industry, to purchase power from another supplier should be excluded from paying for "stranded costs."

Q. How should stranded costs be paid for?

A. If there is a finding of positive stranded costs that customers must pay for, the costs should be paid in a kilowatt hour charge. Great care must be taken to ensure that the adoption of a payment mechanism for stranded costs does not result in cost shifting between classes. A customer or other fixed charge should be avoided, lest cost shifting occur as a result.

In a cost allocation proceeding each class might get a different allocation of the costs of generation, of transmission and of distribution rate base and expenses. The largest industrial customers, for example, served at transmission voltage, are not allocated a share of distribution costs. As a result, in the cost allocation process the smaller customers get a greater percentage of total costs than the share of generation costs assigned to them. Since for the most part "stranded costs" are associated with generation plant, the interaction of the cost allocation methodology with stranded cost responsibility should be reviewed for fairness.

Q. What is your recommendation with respect to cost allocation of stranded costs?

A. The stranded cost Working Group reached what I feel is the correct position on the allocation of stranded costs. The recommendation appears on page 37 of the Report:

Stranded costs should be allocated to jurisdictions and classes in a manner consistent with the specific company's current rate treatment of the stranded asset in order to effect a recovery of stranded costs that is in

1 substantially the same proportion as the recovery of similar costs from  
2 customers or customers classes under current rates. (For example,  
3 stranded generation assets should be allocated using the demand  
4 allocation method used for production plant.) Updated rate design to  
5 correct flaws in current design would be acceptable.<sup>22</sup>  
6

7 Q. One of the issues before the Working Group was whether interruptible  
8 customers should bear a share of stranded costs. What is your view on that?  
9

10 A. Interruptible customers should pay a full share of any "stranded costs."  
11 The theory behind offering interruptible rates is that, while the system has excess  
12 capacity, it is better to sell power even if it does not produce revenues equal to  
13 the full cost of production. It is better to get something as a contribution to  
14 overhead than to get nothing. At the same time, however, a system rationally  
15 planned and engineered strives over time to bring capacity into balance with  
16 demand, so that each kilowatt hour could be sold at a price fully remunerative.  
17 Thus, over time, interruptible rates might be eliminated as excess capacity was  
18 eliminated. Against this background we can see that over time the interruptible  
19 customers might be paying a full share of the cost of capacity, and hence a full  
20 share of any "stranded costs."  
21

22 **Issue 7. Should there be a true-up mechanism and, if so, how would it**  
23 **operate?**  
24

25 Q. Should there be a true-up mechanism?  
26

27 A. Yes, there should be a true-up mechanism.  
28

29 Q. How would a true up mechanism operate?  
30

31 A. Design of a true-up mechanism must await a Commission decision on  
32 other issues in this proceeding. The design of a true-up mechanism should be  
33 among the last decisions the Commission makes on stranded cost.  
34

---

<sup>22</sup> Report, page 37.

1 Q. Why do you recommend a true-up mechanism?

2

3 A. As I describe elsewhere in my testimony, there are significant  
4 uncertainties about whether there will be stranded costs for any utility, and  
5 certainly uncertainties about the amount of stranded costs for all utilities.  
6 Among other things, forecasts of the price of natural gas, and ultimately of a  
7 market clearing price, must be revised from time to time. For this reason there  
8 should be a true-up mechanism designed to ensure fairness as the passage of  
9 time permits a clearer understanding of the factors influencing stranded costs  
10 and the final dimensions of the problem.

11

12 Q. Please elaborate on why a decision about a true-up mechanism should be  
13 among the last of the Commissions findings on stranded cost?

14

15 A. One issue the Commission asked parties to address here is the question  
16 about a rate freeze and/or a price cap. If either is put in place, and, during a  
17 true-up period it is found that additional revenues were needed to cover  
18 stranded cost, rates could not be raised because of the freeze or the price cap.

19

20 That problem then makes us face the issue of a termination period for the  
21 collection of "stranded costs." If there is an end date, that will inter-play with the  
22 rate freeze/price cap, so that if the true-up mechanism showed that additional  
23 revenues were needed, and the freeze/price cap prevented the immediate  
24 collection, the termination date would prevent the eventual collection.

25

26 The design of a true-up mechanism must take into account these other  
27 decisions that will be made by the Commission. The goal of a true-up  
28 mechanism, of course, is to adjust the amount paid for stranded cost so that all  
29 parties are treated fairly. For example, if an upward adjustment in what  
30 customers should pay is required, and if one element of the Commission's  
31 decision, say a price cap, prevents an immediate upward adjustment in  
32 collections, then something else must give way. In this example what might be  
33 changed if the true-up mechanism called for an upward adjustment in collections  
34 would be the end date of the recovery period. The point is that until these inter-  
35 acting elements have been decided, design of the true-up mechanism should be  
36 deferred.

**Issue 8. Should there be price caps or a rate freeze imposed as part of the development of a stranded cost recovery program and if so, how should it be calculated?**

Q. Should a rate freeze be imposed as part of the development of a stranded cost recovery program?

A. No. A rate freeze can't help recover stranded costs unless rates are already unjustly high or a drop in utility costs is about to occur, or both.

A rate freeze carries the implication that rates are currently higher than a reasonable level, so that current rates generate an excess with which to "recover stranded costs." In California, a rate freeze was adopted by the Commission because of the general knowledge that costs for the utilities were dropping sharply, and that the frozen rates would in fact generate a large surplus to cover "stranded costs" in the course of a few short years.

Arizona utilities have yet to file estimates of stranded costs. I am not aware that costs for Arizona utilities are or were going to drop sharply to provide funding for the recovery of stranded costs. If rates are set now at a fair level, those rates cannot provide any "excess" dollars for the recovery of stranded costs.

I recommend that a rate freeze not be adopted. If a rate freeze were to be adopted, the adoption should be conditioned on the Commission first holding a full rate case for each affected utility so that an up-to-date benchmark for reasonable rates is established.

The cost of capital, for example, may be found to be dropping sharply at this time, and that and other factors might be lowering costs. Ordinarily a drop in costs would afford a drop in rates. If these are the conditions found after a rate case for each utility, the Commission would know how much cash a freeze at the existing rates would provide for the recovery of stranded costs. In this way

1 the excess funds generated by a rate freeze would be clearly set and a time for the  
2 termination of the rate freeze could be established.

3  
4 The deregulation of generation is based on the hope that the price of  
5 electricity will fall. A rate freeze prevents prices from falling. A policy change  
6 ought to be predicated on a clear understanding that there will be benefits to the  
7 public and a clear understanding of when those benefits will be delivered.

8  
9 Q. Should price caps be imposed as part of the development of a stranded  
10 cost recovery program?

11  
12 A. A price cap is more reasonable than a rate freeze because it carries the  
13 suggestion that prices can't go up (i. e. are capped) but might go down. Price  
14 caps, however, have significant problems of their own.

15  
16 Q. What are the problems that price cap regulation present?

17  
18 A. A price cap regimen generally carries an indexed price ceiling, so that  
19 prices are adjusted from time to time based on a formula that reflects changes in  
20 general price levels and then subtracts a factor based on the idea that the utility  
21 should become more efficient every year. Thus, to give an example, prices might  
22 be set and then adjusted by multiplying by changes in the Consumer Price Index  
23 (CPI) minus X, where X is a Commissioned determined factor by which prices  
24 ought to drop annually.

25  
26 Q. What is wrong with using such an approach?

27  
28 A. One problem is that, once in place, it is subject to the recontracting  
29 argument. If, for example, it becomes clear that the use of the formula has  
30 resulted in excess profits, for whatever reason, and the Commission wants to  
31 adjust prices to provide the opportunity for a fair return, but no more, the  
32 utilities can (and will) argue that they had a contract, and that revisiting the  
33 contract will take away their incentive to be efficient.<sup>23</sup>

34  

---

23 This is a false argument, as can be shown, but that is beside the point.



1 One reason for such a high rate of profits could be extraordinary efforts on  
2 the part of management to be efficient. On the other hand, drops in fuel prices,  
3 drops in the cost of capital, wage increases smaller than projected, and so on,  
4 may be the drivers. Under traditional regulation rates and profits would be  
5 based on the cost of service, but the connection between costs and prices is  
6 severed or severely weakened under a price cap regime.

7  
8 In the end, furthermore, it is recognized that price caps need to be  
9 adjusted from time to time to bring the cap in line with the cost of service.  
10 Ultimately a price cap is a formal built-in regulatory lag, where the cap is set for  
11 a significant number of years before adjustment. It is better policy to simply  
12 regulate on a cost of service basis without a formal and long regulatory lag.

13  
14 Q. Is there another problem with price caps?

15  
16 A. Yes. In my view this is an even more important reason to be very careful  
17 in establishing a price cap regulatory regime. One of the reasons regulation of  
18 electric utilities exists is to provide for "Just, reasonable, and non-discriminatory  
19 rates."<sup>24</sup>

20  
21 Under a price cap regime a utility is free to reduce rates, but not increase  
22 them. The proponents argue that reductions in rates should be without  
23 Commission oversight, so that management is free to make changes for  
24 efficiency. The problem with leaving the utility free to lower rates at its  
25 discretion is that it can use drops in its costs to unfairly discriminate among  
26 customer classes.

27  
28 Professor Bonbright, addressing the criteria of a sound rate structure  
29 wrote:

30  
31 Public utility counsel have sometimes argued that once a  
32 company's total revenue entitlements have been determined by a  
33 commission, the choice of a pattern of rates that will yield the allowed

---

<sup>24</sup> The "non-discriminatory" phrase is usually interpreted as "not unduly discriminatory," meaning that rates can be different for different customers, but the differences must be based on cost differences.

1 revenues should be left to the discretion of the management, which will  
 2 then be in an impartial position to make a fair apportionment of burdens  
 3 among its different classes of customers. This is only a half-truth  
 4 argument: among other reasons, because a utility company is concerned  
 5 not just to secure rates that will presently yield the approved "fair rate of  
 6 return," but to develop a pattern of rates that will promote growth of  
 7 earnings and that will protect these earnings against business depressions.  
 8 The better the utility management, the greater is this long-run concern.<sup>25</sup>  
 9

10 In the unregulated market for energy vendors will not be constrained  
 11 against discrimination among customers. We can already see multiple product  
 12 offers and can confidently expect cream-skimming and red-lining of customers.<sup>26</sup>  
 13 Marketers will be free to offer price deals to those seen as attractive customers, to  
 14 offer tie-in sales, e. g. burglar alarm service plus electricity at a single package  
 15 price, and at the same time to avoid expensive marketing to those deemed less  
 16 desirable.  
 17

18 Price cap regulation would allow regulated prices to be segmented in  
 19 similar fashion.<sup>27</sup> Customers would lose their right to "just, reasonable, and non-  
 20 discriminatory rates." Utilities might argue that as long as prices are not raised to  
 21 any customers no one has been harmed. But if a utility is free to use any cost  
 22 savings to cut prices on a selective basis, then even customers whose prices have  
 23 not gone up may be harmed because their prices would have gone down under a  
 24 cost of service regime rather than a price cap regime. Cross-subsidization must  
 25 be constrained by Commission oversight and control.  
 26

27 The Goldwater Institute, in its comments on the Report of the Stranded  
 28 Cost Working Group, remarked that "Cost allocations are essentially politically  
 29 guided price discrimination."<sup>28</sup> But price discrimination should be politically  
 30 guided. The role of the Commission in setting cost allocations and then,

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<sup>25</sup> Principles of Public Utility Rates, James C. Bonbright, Columbia Univ. Press, New York, 1961, p. 287, footnote 1.

<sup>26</sup> "Redlining" will take the form of avoiding specific customers based on credit histories, energy consumption and income, rather than by neighborhood.

<sup>27</sup> "segmenting markets" to some is the same as discrimination to others.

<sup>28</sup> "Comments on the Final Report of the Stranded Cost Working Group" submitted by the Goldwater Institute, second page.

1 subsequently, rate designs, is in fact a political one. The Commission is charged  
2 with the political duty of protecting the public interest. And that is to the good,  
3 for the Commission's role is protecting the public interest.

4  
5 Q. Please summarize your recommendation with respect to the question of  
6 rate freezes and price caps?

7  
8 A. A rate freeze should not be adopted. A price cap should only be adopted  
9 if the Commission retains control of individual tariffs. A price cap should only  
10 function to be an upper bound on rates, with a clear plan in place to revisit the  
11 ceiling and to end it as conditions warrant.

12  
13  
14 **Issue 9. What factors should be considered for "mitigation" of stranded**  
15 **costs?**

16  
17 Q. What should the Commission consider in the "mitigation" of stranded  
18 costs?

19  
20 A. Let me repeat, first, that the Commission should consider "mitigable"  
21 along with "mitigated" in dealing with stranded costs. The Commission should  
22 reserve the right to compel the utilities to actually mitigate stranded costs to the  
23 maximum extent, or to penalize them if they do not. I have also already  
24 mentioned in an earlier answer, at the end of the discussion of Issue 3, my view  
25 that new opportunities to profit from transmission transactions occurring as the  
26 result of restructuring should be used to mitigate stranded cost. And, finally, in  
27 the section on Issue 1, about the modification of the rules, I urged that Rule R14-  
28 2-1607 not be modified in a way that limit the scope of the Arizona Corporation  
29 Commission's review of utility enterprise. I emphasized that it is important for  
30 the Commission to be able to review and respond to the other business  
31 enterprises of the regulated utilities to save customers from harm, and that might  
32 capture, as appropriate, gains from non-utility enterprises.

33  
34 There are, furthermore, additional factors that will mitigate stranded costs  
35 that must be taken into consideration by the Commission.

1  
2 Q. What are these additional factors?

3  
4 A. Restructuring changes the value of the generation assets, and the change is  
5 generally assumed to be downward. This drop in value is a good part of the  
6 costs being discussed in this Docket. But restructuring changes, at the same time,  
7 the value of the transmission system and, separately, the value of the distribution  
8 system. Both of these changes we can be confident will be an increase in value.  
9 Because the increase in value will take place as part of the restructuring, the  
10 increase should be used to mitigate stranded costs occurring as part of the same  
11 restructuring.

12  
13 Q. How does restructuring increase the value of the transmission system and  
14 the distribution system?

15  
16 A. It is generally accepted that the risk involved for an investor is less for  
17 transmission and for distribution than is the risk involved in an investment in  
18 generation. At the moment of restructuring, therefore, as generation is  
19 effectively separated, the cost of capital for transmission and distribution will  
20 drop. That drop means that there is a corresponding rise in the value of the  
21 transmission and distribution systems. That rise in value should be used to  
22 mitigate the stranded costs on the generation side which arise from the same  
23 source, i. e. the restructuring itself.

24  
25 Q. Why do you say that it is generally accepted that risk is lower on the  
26 transmission and distribution systems?

27  
28 A. We observe that the Federal Energy Regulatory Commission (FERC), by  
29 setting the collection of stranded costs on the transmission tariffs, expects the  
30 transmission business to be solid enough to deliver the extra burden over time.  
31 In addition, the California "rate reduction bonds," for which the payment will  
32 come from a charge on the distribution system, were given a AAA rating,  
33 suggesting that investors believe that the distribution system itself is a low risk  
34 business.

1 Q. Are there other ways in which restructuring, per se, increases the value of  
2 the Distribution system?

3  
4 A. Yes. The distribution system becomes the key to "owning" customers and  
5 is believed by many, including myself, to be the high profit area of the electric  
6 power business in the future.

7  
8 Q. What do you mean by "owning customers"?

9  
10 A. New marketers of electricity, including Enron, for example, speak of  
11 "owning customers" in the sense of having the customer know the brand and  
12 logo of the marketer and having some loyalty to that brand and logo. Quite large  
13 sums are now being spent in California and elsewhere by the new marketers  
14 trying to attract customers away from the utility. In California the utility  
15 became, under AB 1890, the default provider and in that sense "owns" the  
16 customers. It is generally recognized, based on the experience in  
17 telecommunications and elsewhere, that consumers have considerable inertia  
18 with respect to changing providers.

19  
20 In California, in spite of large outlays by new marketers and an \$80  
21 million educational effort sponsored by the CPUC to tell customers that they  
22 now have a "choice" of providers, very few customers have switched from the  
23 incumbent default provider. The Wall Street Journal reports that San Diego Gas  
24 & Electric Company had received requests from only 915 customers to sign with  
25 a new energy provider, and less than half of those are residential customers.<sup>29</sup>  
26 The same article reported that for Pacific Gas & Electric, only 10,827 out of 4.6  
27 million customers had asked to switch, and that only about 1,500 residential  
28 customers are included in that total.

29  
30 Q. What is the significance for mitigating stranded cost of the distribution  
31 utility retaining customers?

32  
33 A. My point is that the distribution business has the potential of becoming  
34 much more profitable in the future, if the incumbent retains the customers. The

---

<sup>29</sup> The Wall Street Journal, December 31, 1997.

1 new marketing is going to bundle other products with electric energy, and  
2 owning the customers is the gateway to tying other sales to the energy sale.  
3 Selling bundled products such as home security alarm systems, cable TV,  
4 telecommunications, and even mortgage servicing is much more profitable when  
5 the customer already takes energy and receives a monthly mailing from the  
6 utility.

7  
8 Q. Are you saying that the profits from burglar alarms and other new  
9 ventures should be used to mitigate "stranded costs"?

10  
11 A. I am making a different point. I am saying that the distribution system  
12 will have extra profit potential because of restructuring, particularly if the  
13 incumbent utility is the default provider. This profit potential arises precisely  
14 because of restructuring. The gain in the value of the distribution system should  
15 be used to mitigate any drop in the value of the generation assets arising from  
16 the same Commission action to restructure.

17  
18 Q. What else should be used to mitigate "stranded costs"?

19  
20 A. Regardless of whether or not there are stranded costs, every corporate  
21 management should be aggressive in attempting to lower costs. The  
22 Commission should condition any collection of stranded costs on good  
23 performances by the utility managements. One step recently taken by the Salt  
24 River Project (SRP) is an example of cost cutting that should be expected  
25 regardless of whether there are stranded costs or not. It was recently reported  
26 that the SRP re negotiated a contract with Pittsburg & Midway that reduces fuel  
27 costs to make a generating station more competitive.<sup>30</sup> Finding and taking such  
28 measures should be a condition that the Commission places on the collection of  
29 stranded costs.

30  
31  
32 **Issue 10. The recommended calculation methodology and assumptions**  
33 **made including any determination of the market clearing price.**  
34

---

<sup>30</sup> Coal Daily, Jan. 7, 1998.

1 Q. You addressed the calculation methodology earlier, in response to issue 3.  
2 Do you have anything to add on that subject ?

3  
4 A. No.

5  
6 Q. What is your recommendation on the determination of the market clearing  
7 price?

8  
9 A. A great deal of information gathering and study, as well as theorizing is  
10 necessary before a solid estimate of the market clearing price can be made. Using  
11 a proxy such as the Dow Jones Palo Verde Index trivializes what is a very  
12 complex question.

13  
14 Q. Why do you say that the question of a market clearing price is complex?

15  
16 A. Many, if not most of the utilities in the Western United States are asserting  
17 that they have stranded costs. This is a situation something like that found at  
18 Lake Woebegone, where all the children are above average. This mysterious  
19 situation, where each utility has positive stranded generation assets, raises the  
20 question of from where is the low price power coming that strands the  
21 generation of all the others.

22  
23 To find a market clearing price that can be a solid basis for developing  
24 reasonable estimates of stranded cost requires answering a number of questions,  
25 including:

26  
27 • What are the transmission paths and constraints under which  
28 power from a low-cost source can move into an area to undercut a higher priced  
29 source?

30  
31 • What will be the transmission rules, including those of any ISO,  
32 with respect to "must-run" units? Some units will be given secure payments to  
33 serve as must-run for purposes of voltage support, VAR support, and for  
34 complying with concerns of the Nuclear Regulatory Commission. (NRC)<sup>31</sup>

---

<sup>31</sup> In a copyright report, Energy Central recently noted that the NRC is concerned that nuclear plants be protected with respect to sales of non-nuclear generating units. The NRC wants

1  
2 • What is the level of ownership concentration with respect to  
3 generating capacity in the relevant market? Is concentration high enough to  
4 reasonably expect that prices will be administered rather than be driven to the  
5 level of the running cost of the last unit dispatched?  
6

7 • How rapidly will demand for electricity grow in the Western U. S. and  
8 how soon will excess capacity be absorbed?  
9

10 • What will be the running cost of the last unit dispatched each hour  
11 during the 8,760 hours of the year?  
12

13 • What units, where, and under whose ownership will not be  
14 dispatched in the new world of unregulated generation?  
15

16 • What are the plans, and the timing of the plans of the new owners  
17 of the California power plants that have been auctioned recently? Will those  
18 plants be retired, replaced, or repowered?  
19

20 • Will new power plants be built in the Western U. S.? When? What  
21 kind?  
22

23 • Will some plants, e. g. Mohave, be forced to retrofit for  
24 environmental reasons? Will such plants be retrofitted or retired or replaced?  
25

26 • What impact with EPA rules with respect to non-attainment areas  
27 have on the market clearing price in the Western U. S.?  
28

29 • Will some or all units of California nuclear plants be closed after the  
30 collection of associated stranded costs? If so, what will be the impact on the  
31 market clearing price?  
32

---

assurance of adequate protection in the event of a grid blackout, and potentially could intervene in a non-nuclear asset sale to be sure of grid protection.



1 • What will happen in the Pacific Northwest with respect to  
2 protection of the salmon fisheries and how will that impact the market clearing  
3 price?

4  
5 • Will Federal legislation on restructuring be passed, and if so, what  
6 will it require?

7  
8 • Will Congress adopt changes with respect to the Bonneville Power  
9 Administration and other federal power marketing agencies that impact the  
10 market clearing price? If so, when?

11  
12 • Will a climate treaty be ratified, and if so, when would its impact be  
13 felt?

14  
15 Q. Do you have answers to these questions?

16  
17 A. No. It is outside the scope of my testimony to try to answer these  
18 questions. The point is that an attempt to find a definitive market clearing price  
19 without considering questions like these, and perhaps additional ones, is  
20 premature.

21  
22  
23 **Issue 11. The implications of the Statement of Financial Accounting**  
24 **Standards No. 71 resulting from the recommended stranded cost**  
25 **calculation and recovery methodology.**  
26

27 Q. Do you have any comment on the implications of the Statement of  
28 Financial Accounting Standards No. 71 resulting from the recommended  
29 stranded cost calculation and recovery methodology.

30  
31 A. No.

32  
33 Q. Does that complete your prepared testimony?

34  
35 A. Yes.

EXHIBIT

Tucson-2  
Admitted

BEFORE THE ARIZONA CORPORATION COMMISSION

JIM IRVIN

Commissioner – Chairman

RENZ JENNINGS

Commissioner

CARL J. KUNASEK

Commissioner

IN THE MATTER OF THE COMPETITION IN	)	DOCKET NO. U-0000-94-165
THE PROVISION OF ELECTRIC SERVICES	)	SUMMARY OF
THROUGHOUT THE STATE OF ARIZONA	)	DIRECT TESTIMONY OF
_____	)	EUGENE P. COYLE

On Behalf of  
THE CITY OF TUCSON

JANUARY 21, 1998

## DIRECT TESTIMONY OF EUGENE P. COYLE

### SUMMARY

My direct testimony addresses the eleven issues set forth in the Arizona Corporation Commission's Procedural Orders dated December 1, and 11, 1997.

Issue One The Commission's first question is whether the Electric Competition Rules should be modified regarding stranded costs, and if so, how. I do not suggest major changes in the Rules but do suggest some in order to better accomplish the goals of protecting consumers and advancing fairness. I suggest, first, that the Rules should be strengthened to emphasize that the burden of proof is on the Affected Utilities with respect to a showing on stranded costs. The claim of a regulatory compact is a weak justification for stranded costs and even if accepted is not a justification for asking consumers to pay 100% of any stranded costs.

I next recommend that the Commission, using rule R14-21607 K, Order the Affected Utilities to file estimates of stranded costs in this Docket so as to inform the Commission before it makes policy decisions on the other questions before it. It explain further on this point later in my testimony, but at heart the Commission is entitled to know, and should know, the impacts of its decisions before finalizing them. I also make other recommendations with respect to the Rules in response to this first question.

Issue Two asks when should the Affected Utilities be required to make a stranded cost filing, and I recommend, as just noted, that the filing should be required in this Docket.

Issue Three asks two questions. The first asks what cost should be included as part of stranded costs. My testimony on this covers two areas: the first raises the issue of whether or not the utilities have been

compensated already for taking the risk that costs might be stranded. This is an empirical question that can be answered by reviewing past Commission decisions on the cost of capital with respect to the risk premium(s) allowed by the Commission. The second area is a discussion of the contention that there is a "regulatory compact" which requires the Commission to afford the recovery of 100% of any "stranded costs." I conclude on this point that the Commission is not required to grant the utilities the recovery of 100% of stranded costs.

The second question of Issue Three addresses how stranded costs should be calculated. Here I recommend one method over the others discussed in the Report of the Stranded Cost Working Group, while reviewing the merits of each. The method I favor is called "Replacement Cost Valuation" by the Working Group, and I provide an extensive discussion of how it should be modified before adoption. I point out that the Western U.S. presently has significant excess capacity and argue that utility earnings are always burdened when they have excess capacity. A special provision for stranded costs should not be made because of cyclical phenomena. In this section I also note that the gas turbine industry itself is experiencing a cyclical glut of capacity and caution that today's price quotes for turbines should not be used as a basis for calculating stranded costs. I also argue in this section that an industry with the cost characteristics of electric generation will not reach a stable equilibrium price equal to the cost of power from the most cost-effective technology available on the market. Price in the market will not be equal to the cost of the lowest cost unit but rather by the most expensive unit that actually gets dispatched.

To be brief, I point out that an expectation of oligopoly pricing - that is, higher than textbook "competitive pricing" -- must be a factor in calculation of stranded cost.

Issue Four asks about a limitation on the timeframe over which stranded costs are calculated. I point out that there is a tension between competing needs here. First, the Commission should be patient in watching developments in the industry, but against that is the need to close the issue lest it get confused over time with general economic developments, including deflation and inflation, and with technological innovation.

Issue Five asks about a limitation on the time for recovery of stranded costs. Here I recommend that resolution of this should await the results of the Affected Utilities filings of estimates on stranded costs. If the dollar amounts are very large, a short recovery period might actually raise customers' rates, contrary to the hopes of all. I also point out that

California had a solid expectation that the utilities' costs were dropping, and that the underlying cost drop made recovery possible without raising rates. In this section I also briefly touch on the issue of securitization. I also point out that generational equity is an issue that must be considered in setting a recovery period. Senior citizens might only live through the recovery period but no longer, and thus get no benefit from a short recovery period.

Issue Six asks how and who should pay for "stranded costs." I first mention that those customers who had a right prior to the restructuring of the industry to purchase power from another supplier should be excluded from paying for stranded costs. For this issue I discuss the question of cost allocation and agree with adopting the recommendation of the Stranded Cost Working Group, which I quote in the testimony.

Issue Seven concerns the "True-up mechanism." I believe that a "true-up mechanism" should be adopted by the Commission because the many uncertainties facing the industry over the next few years make a confident, once-and-for-all determination of stranded costs unwise. At the same time, I point out that the design of such a mechanism should be one of the last issues that the Commission resolves because it will depend on the interplay of the recovery period and the adoption of a price cap or rate freeze, which the Commission has yet to resolve.

Issue Eight asks if there should be a price cap or a rate freeze imposed as part of a stranded cost recovery program. I recommend against a rate freeze. Unless existing rates are now providing a utility with over-collection from the customers, a rate freeze will not generate any cash for the recovery of stranded cost. Advocating a rate freeze implies a belief that rates are too high now. If a rate freeze were to be adopted it must be preceded by a general rate case to determine the correct level of rates and to establish how much the freeze would generate for the recovery of stranded costs.

A price cap is more reasonable than a rate freeze because it carries the implication that rates can't go up but might go down. Price caps, however, have significant problems of their own which I discuss. One problem, called the recontracting argument, is that any subsequent reductions in the cap takes away management's incentive to be efficient. This is a groundless contention but nevertheless, can be expected. In the end, price caps do need to be revisited to bring rates in line with cost of service. A more important problem with Price Cap regulation is that, if poorly designed, it deprives customers of Commission oversight over the fairness of rates among classes and among customers within a class. "Just,

reasonable, and non-discriminatory" rates should remain a goal of the Commission.

Issue Nine takes up the factors to be considered in the "mitigation" of stranded cost. Here I recommend that the Commission consider "mitigable" along with "mitigated" in dealing with Stranded Costs. The Commission must keep the right to compel the utilities to actually mitigate stranded costs to the maximum extent, or to penalize them if they do not.

I note in this section that I had already mentioned, in Issue Three, that there may be new opportunities to profit from transmission transactions as the result of restructuring of the industry, and that those should be used to mitigate any stranded costs. I emphasize that it is important for the Commission to be able to review and respond to other business enterprises of the regulated utilities to save customers from harm and to capture, as appropriate, gains from non-utility enterprises.

In this section I also point out that the value of the distribution system and the transmission system will likely rise because they are less risky than investment in generation, and that the increase in the value of these should be used to mitigate stranded cost.

Issue Ten asks about calculation methodology and assumptions made in determining the market clearing price. I discussed calculation methods in answering questions on Issue Three and don't add to that in response to Issue Ten. I do however, discuss the problem of determining the market clearing price. I point out that many, if not most of the utilities in the Western United States are asserting that they have stranded costs. This is something like Lake Woebegone, where all the children are above average. If all the utilities are at risk for stranded costs, where is the low-priced competitive power coming from? In this section I list a number of questions that must be addressed, if not answered, before developing reasonable estimates of stranded costs.

Issue Eleven concerns Financial Accounting Standard No. 71 on which I do not comment.

**BEFORE THE ARIZONA CORPORATION COMMISSION**

**JIM IRVIN**

**Commissioner-Chairman**

**RENZ D. JENNINGS**

**Commissioner**

**CARL J. KUNASEK**

**Commissioner**

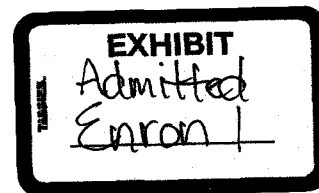
**IN THE MATTER OF THE COMPETITION IN THE PROVISION OF ELECTRIC  
SERVICES THROUGHOUT THE STATE OF ARIZONA.**

**DOCKET NO. U-0000-94-165**

**DIRECT TESTIMONY OF  
MONA PETROCHKO**

**On Behalf of  
Enron Energy Services, Inc.**

**January 21, 1998**



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1 **Summary of Ms. Petrochko's Testimony:**

2  
3 **Question 3, What costs should be included as part of "stranded costs" and how**  
4 **should those cost be calculated?**

5 Generation assets and regulatory assets are the two primary cost categories that  
6 comprise stranded cost calculation. Generation assets include supply contracts through  
7 either power purchase agreements or purchases from qualifying facilities (QF's). It also  
8 includes long-term commitments for fuel used in generation. Regulatory Assets are costs  
9 included on the utility balance sheet for which recovery is deferred under regulatory  
10 accounting treatment.

11 Stranded costs should be determined on a market-based approach. For generation,  
12 an asset sale or an appraisal method is preferred. In determining a stranded cost for a  
13 regulatory asset, it must first be determined that the asset is stranded as a result of the  
14 introduction of competition. Once that determination is made, if there are physical assets  
15 where a market value can be determined, then the balance between the recorded value of  
16 the asset and the market value will dictate the stranded cost amount. Otherwise, the  
17 recorded value of the asset, that is uneconomic as a result of a transition to competition,  
18 should be recoverable.

19  
20 **Sub-issue: Provide the recommended calculation methodology and assumptions**  
21 **made including any determination of the market clearing price.**

22 Enron supports 100% recovery of all prudently incurred, unmitigable stranded  
23 costs that result from the transition from a regulated environment to a competitive

1 environment. Enron advocates a market-based method which include a competitive-bid  
2 sale or auction, an independent third-party appraisal or output contracts. Of these,  
3 divestiture is the preferred methodology for calculating stranded costs because it  
4 establishes a true value for the asset and encourages a transition to a competitive market.  
5 It is equally important that the Commission ensure that meaningful competition coincide  
6 with the recovery of stranded costs.

7 In my testimony, I have identified states which have required divestiture as part of  
8 their electric restructuring efforts. I also include an update of the recent utility asset sales  
9 that have been transacted.

10

11 **Question 1, Should the electric competition rules be modified regarding stranded**  
12 **costs, if so, how?**

13 I have identified three areas of the rule that requires a change as they relate to  
14 stranded costs. Those changes address: R14-2-1607.A., with regard to the utility's ability  
15 to expand the scope of its services for profit; Paragraph H, of the same section, dealing  
16 with the recovery of lost revenues as a result of customers obtaining lower rates from the  
17 Affected Utility; and Paragraph J, which required stranded costs to be recovered only  
18 from customer purchases in the competitive market.

19

20 **Question 2, When should "affected utilities" be required to make a "stranded cost"**  
21 **filing pursuant to A. A. C. R14-2-1607?**

1 I believe that the utilities should make their filings as quickly as possible after a  
2 final order has been issued in this proceeding. A delay in the utilities presenting their  
3 stranded cost filings should not delay the beginning of competition on January 1, 1999.  
4

5 **Question 8, Should there be price caps or rate freezes imposed?**

6 I believe a rate cap may be appropriate for a transitional period, not a rate freeze.  
7

8 **Question 4, Should there be a limitation on the time frame over which stranded**  
9 **costs are calculated.**

10 Yes. A limited calculation period provides incentive to the utility to transition to  
11 a competitive market.  
12

13 **Question 5, Should there be a limitation on the recovery time frame for stranded**  
14 **costs?**

15 Enron submits that the recovery period should take into consideration the phase-in  
16 schedule that provides choice to consumers. In general, I would support a recovery  
17 period of three to five years. However, stranded cost recovery should coincide with  
18 access to choice. If the existing schedule to provide access remains, recovery of stranded  
19 costs will have been essentially completed prior to all customers having access. For this  
20 reason, under the existing rules, it may make sense to prolong the recovery period beyond  
21 five years. If the phase-in schedule is accelerated, a shorter period would be more  
22 appropriate.  
23

1     **Question 6, How and who should pay for stranded costs and who, if anyone, should**  
2     **be excluded from paying for stranded costs?**

3             I support the recommendation by the stranded cost working group that stranded  
4     costs should be allocated among customer classes using the same methodology in which  
5     the assets were allocated. This would prevent any cost responsibility shift among rate  
6     classes. I also support the stranded cost working group's recommendation that rate  
7     design for stranded cost recovery should be consistent with rate design for the customer  
8     class. The working group recommended stranded cost rate design permit for either a  
9     kWh charge, kW charge or an option to pre-pay the stranded cost responsibility.  
10    However, the transition charge should not be a residual number based on the clearing  
11    price of power but a known, fixed charge.

12            I support the language in article J of R14-2-1607 which provides for exclusion of  
13    stranded cost recovery from self-generators, demand-side management or "other demand  
14    reduction attributable to any other cause" other than retail access. In addition, I believe  
15    there is a credible argument to exclude interruptible customers from stranded cost  
16    recovery associated with generation which was not designed to serve interruptible load.

17

18     **Question 7, Should there be a true-up mechanism and, if so, how would it operate?**

19            The need for true-ups is obviated under a competitive bid sale or appraisal process  
20    except to the extent that the amount approved for stranded cost recovery is in fact the  
21    amount recovered in rates. Treatment of excess revenues may need to be addressed by  
22    the Commission. The only other true-up which may be necessary is if the Commission

1 decides to true-up stranded cost recovery at the end of the recovery period to ensure that  
2 stranded costs have been accurately recovered.

3

4 **Question 9, What factors should be considered for mitigation of stranded costs?**

5 Enron believes that buy-outs, buy-downs of contracts, divestiture, and efficiency  
6 improvements are all acceptable means for mitigating stranded costs. Additional means  
7 by which the utility can generate revenue requires careful examination by the  
8 Commission.

9

10 **Sub-issue: What are the implications of the Statement of Financial Accounting**  
11 **Standards No. 71 resulting from the recommended stranded cost calculation and**  
12 **recovery methodology?**

13 In my opinion, in the event of an asset sale, the proceeds from the sale would be  
14 credited against any book balance. The difference, if applicable, would be recovered as a  
15 regulatory asset from consumers. Stranded costs, which are established by a regulatory  
16 body, would be a regulatory asset. Therefore, treatment under SFAS 71 would still be  
17 applicable. If the Commission establishes a defined recovery period, any unrecovered  
18 balance at the end of that period may need to be written down.

1   **PLEASE STATE YOUR NAME AND BUSINESS ADDRESS:**

2           My name is Mona L. Petrochko, 101 California Street, Suite 1950, San Francisco,  
3   California 94111.

4

5   **BY WHOM AND IN WHAT CAPACITY ARE YOU EMPLOYED?**

6           I am employed by Enron Corporation as the Director of State Government Affairs.  
7   My responsibilities include participating in state regulatory proceedings which address  
8   electric restructuring, such as this. In addition, I have responsibility for working with  
9   state legislators in introducing legislation to enable electric restructuring. I have specific  
10   responsibility for representing Enron in this docket.

11

12   **ON WHOSE BEHALF DO YOU PRESENT YOUR TESTIMONY TODAY?**

13           I am presenting my testimony on behalf of Enron Energy Service, Inc.

14

15   **PLEASE DESCRIBE YOUR EDUCATION AND WORK EXPERIENCE.**

16           I have a B. S. Degree in Petroleum and Natural Gas Engineering from The  
17   Pennsylvania State University. I have attended various conferences on rate design  
18   sponsored by the American Gas Association and the Southern Gas Association.

19           I have been employed by Enron since April 1996. I have held my current position  
20   since July 1997. Prior to my current position, I was Manager, State Regulatory Affairs. I  
21   represented Enron in Gas Restructuring Proceedings. I have testified before the state  
22   commissions of California, New Mexico, Colorado and Montana.

1 Prior to my employment with Enron, I was employed by San Diego Gas &  
2 Electric as a Senior Pricing Analyst from October 1994 through March 1996. My  
3 responsibilities included development of gas rates and tariff proposals including marginal  
4 cost studies.

5 From May 1987 until September 1994, I was employed by Elizabethtown Gas  
6 Company, Union, New Jersey, in various planning, gas supply and rates positions.  
7 During my employment at Elizabethtown Gas, I participated in the preparation of short-  
8 and long-term demand and revenue forecasts, reviewed interstate pipeline rate cases and  
9 purchased gas adjustments proceedings, ran economic dispatch models, and assisted in  
10 the preparation of testimony and supporting studies in gas cost proceedings and rate case  
11 preparation.

12 From December 1984 until February 1987, I was employed by Atlas Energy  
13 Group, Coraopolis, Pennsylvania, an independent oil and gas exploration and production  
14 company.

15  
16 **HAVE YOU TESTIFIED BEFORE THIS COMMISSION PREVIOUSLY?**

17 No. However, I have provided oral comments to this Commission at the open  
18 meeting on November 24 and 25 of 1997.

19  
20 **PLEASE DESCRIBE THE BUSINESS(ES) OF ENRON.**

21 Enron is one of the world's largest integrated natural gas and electricity  
22 companies with approximately \$23 billion in assets. It operates one of the largest natural  
23 gas transmission systems in the world and is the largest marketer of natural gas and

1 electricity in North America. Enron, with its related corporations and affiliates, is a  
2 leading participant in liberalized energy markets in the United Kingdom and the Nordic  
3 Countries. Enron markets natural gas liquids worldwide. Enron manages the largest  
4 portfolio of fixed-price natural gas risk management contracts in the world. Enron is  
5 among the leading entities arranging new capital to the energy industry; owns a majority  
6 interest in Enron Oil & Gas Company, one of the largest independent (non-integrated)  
7 exploration and production companies in the United States; and owns a majority interest  
8 in Enron Global Power & Pipelines L.L.C., the owner and manager of operating power  
9 plants and natural gas pipelines around the world. Enron is one of the largest independent  
10 developers and producers of electricity in the world. Enron is a major supplier of solar  
11 and wind energy worldwide. Enron's internet address is [www.enron.com](http://www.enron.com) and its  
12 common stock is traded under the ticker symbol, "ENE".  
13

14 **WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

15 I am testifying in response to the policy questions contained in the Procedural  
16 Order Issued by Chief Hearing Examiner Rudibaugh on December 1, 1997, and amended  
17 on December 11, 1997 and January 5, 1998, with regard to stranded costs in Docket No.  
18 U-0000-94-165. Enron has a real interest in how the rules for providing competitive  
19 service in Arizona are designed. Enron believes very strongly that competition will bring  
20 about reduced cost, improved service to Arizonans through innovation and technological  
21 advancement. However, the rules for competition must allow competitors to provide  
22 these services without unnecessary or excessive financial encumbrance to consumers.  
23 Allowing companies to recover in excess of the appropriate level of stranded costs will



1 have a chilling affect on consumers and competitors. The excess cost recovery will  
2 diminish otherwise available cost reductions to consumers. In the alternative, a decision  
3 to provide less recovery than the prudently-incurred costs may have serious implications  
4 on a utility company's financial viability. In addition, the method by which these costs  
5 are recovered is equally important in their effect to competition.

6 Enron supports the Commission's definition of stranded costs. It is extremely  
7 important to the development of competition that the Commission, in this proceeding,  
8 establish a fair and equitable plan for a transition to a competitive market than permits a  
9 reasonable opportunity for the utility to recover these costs from consumers over a  
10 reasonable period of time.

11  
12 **3. WHAT COSTS SHOULD BE INCLUDED AS PART OF "STRANDED**  
13 **COSTS" AND HOW SHOULD THOSE COSTS BE CALCULATED?**

14 a. **The recommended calculation methodology and assumptions made**  
15 **including any determination of the market clearing price**

16 Stranded costs primarily include two different cost categories:

- 17 1. **Generating Assets:** The physical generating assets as well as power purchase  
18 contracts and qualifying-facility (QF) contracts.
- 19 2. **Regulatory Assets:** Assets which have received regulatory recovery treatment which  
20 would be unrecoverable in a competitive environment.

21 I will address the identification, valuation, mitigation and recovery mechanisms of  
22 stranded costs in the testimony that follows.

1   **WHAT IS ENRON'S POSITION RELATIVE TO STRANDED COST**  
2   **RECOVERY?**

3           Enron endorses 100% recovery of prudent, verifiable, and mitigated uneconomic  
4   or stranded investments. Much of the debate has focused on either 0% or 100% recovery.  
5   Enron maintains that the more appropriate question is 100% of *what*? Utilities argue that  
6   (1) they were forced to undertake the investment, (2) that the terms of their "regulatory  
7   compact" provided them with the exclusive right to serve<sup>1</sup>, (3) that their rate of return did  
8   not compensate them for competitive risk, and (4) that they have fully mitigated these  
9   costs.

10          Enron's position is that the utilities should recover 100% of the costs which  
11   satisfy these criteria. In other words, utilities should be forced to substantiate their own  
12   rhetoric. In the alternative, Enron proposes 100% of the stranded costs to the extent  
13   utilities divest their generation and merchant business. Stranded cost recovery can be  
14   used as an incentive for divestiture. Money received through divestiture could be used as  
15   an incentive to offset uneconomic costs and as a measure of the true level of stranded  
16   costs.

17  
18   **PLEASE DISCUSS HOW GENERATING ASSETS BECOME STRANDED IN**  
19   **THE TRANSITION FROM A REGULATED ENVIRONMENT TO A**  
20   **COMPETITIVE ENVIRONMENT.**

21           Generating assets, namely plant, have been built to provide adequate  
22   power supplies for the affected utility's customers' power and demand requirements.

---

<sup>1</sup> Cite to Judge Campbell's ruling that there is no regulatory compact and no property right to a monopoly.

1 Plants are built with projections in growth requirements over a specified period of time.  
2 Several technologies are available for producing electricity. Each of these technologies  
3 have useful lives of upwards of 40 years. The investment in generating facilities is  
4 enormous. These costs can range from several hundreds of millions to billions of dollars.  
5 Traditional cost-of-service rate treatment requires a depreciation schedule over the useful  
6 life of the plant. The value of the plant is considered to be the book value, or the total  
7 investment net of depreciation. The return to shareholders on net value of the asset and a  
8 return of the asset is provided through utility rates. This is a simplification of the  
9 regulated approach to the value of the plants.

10 As a result of competition, book values are not necessarily indicative of the value  
11 the asset may have on the market. Markets, comprised of willing buyers and sellers, will  
12 be determining market prices as opposed to regulatory bodies. The buyer and seller will  
13 reach agreement on the value of the electricity based on market conditions. Many factors  
14 will determine price in the marketplace.

15 An asset, or a portion of an asset, becomes stranded when the book value of the  
16 asset is more than the market value of the asset. A determination of stranded cost is  
17 based on the net difference of all jurisdictional assets. The determination of the market  
18 value of the asset is the area of disagreement among members of the Stranded Cost  
19 Working Group.

20  
21 **HOW DOES ENRON PROPOSE THE MARKET VALUE OF THE**  
22 **GENERATING ASSETS BE DETERMINED?**

1 Enron advocates a market valuation of stranded assets, as opposed to an administrative  
2 approach, where possible. Several market-valuation methods are available. These  
3 include: An auction or other competitive bid process, market appraisals and/or the sale of  
4 generation output by means of contracts.

5  
6 **WHAT GOALS CAN BE ACHIEVED THROUGH THE PROPER VALUATION**  
7 **AND RECOVERY OF STRANDED COSTS?**

8 There are two overriding goals:

- 9 1. Achievement of values used in the determination of stranded costs that are accurate  
10 and correctly determined.
- 11 2. Recovery of stranded costs in a manner which supports the development and  
12 maintenance of a truly competitive market for power.

13 The first goal is a reflection of simple fairness. Enron supports a fair recovery of  
14 stranded costs such that the utility's ability to provide safe and reliable service remains  
15 unimpaired. If stranded costs are over- or under-estimated, not only will some company  
16 or group benefit at the expense of others, but the restructured market for power supply  
17 will be less competitive. If stranded costs are over-estimated, ratepayers will pay more  
18 than they should for electric service. If stranded costs are under-estimated, the utility will  
19 be unfairly disadvantaged in the new competitive market for power supply.

20 With regard to the second goal, customers will clearly benefit from policies which  
21 support a competitive market place. Freed from traditional regulation, the competitive  
22 structure of the marketplace will be the customer's best safeguard and hope for lower  
23 rates, better service, and improved product offerings. The Commission's effort to achieve

1 lower customer rates, both now and in the future, will be furthered by the existence of a  
2 truly competitive marketplace for power supply. Potential new entrants are certainly best  
3 served by a fair competitive marketplace because, to the extent that any supplier receives  
4 an unfair advantage, all competitors are harmed. While Enron supports fair recovery of  
5 stranded costs by utilities, such recovery should not be permitted to subsidize a utility's  
6 competitive position.

7  
8 **WHY IS A MARKET-BASED APPROACH TO EVALUATING THE ASSETS**  
9 **SUPERIOR TO AN ADMINISTRATIVE APPROACH?**

10 There are four reasons why a market-based approach is superior to an administrative  
11 approach:

- 12 1. It is consistent with the definition of stranded costs in the A. A. C. Rules.
- 13 2. It meets the goals described above. It establishes an equitable starting point, whereby  
14 the utility receives a fair value for the assets and consumers do not pay more in  
15 stranded costs than is justified by the market.
- 16 3. It reduces or eliminates the need for subsequent administrative processes or true-ups.
- 17 4. The sale of the assets will reduce other concerns, such as the ability of utilities to  
18 exert market power through vertical integration.

19  
20 **PLEASE ELABORATE ON THE FOUR AREAS YOU HAVE IDENTIFIED**  
21 **WHICH, IN YOUR OPINION, SUPPORT A MARKET-BASED APPROACH AS**  
22 **SUPERIOR TO AN ADMINISTRATIVE APPROACH.**

1 There are four reasons why a market-based approach is superior to an administrative  
2 approach:

3 1. It is consistent with the definition of stranded costs in the A. A. C. Rules. Rule  
4 R14-2-1601.8 defines stranded costs as follows:

5 “Stranded Cost means the verifiable net difference between:

6 a. The value of all the prudent jurisdictional assets and obligations  
7 necessary to furnish electricity (such as generating plants, purchased  
8 power contracts, fuel contracts, and regulatory assets), acquired or  
9 entered into prior to the adoption of this Article, under traditional  
10 regulation of Affected Utilities; and

11 b. The **market value** (emphasis added) of those assets and obligations  
12 directly attributable to the introduction of competition under this  
13 Article.”

14 2. It establishes a level playing field, whereby the utility receives a fair value for  
15 the assets and consumers do not pay more in stranded costs than is justified by  
16 the market. Other methods, such as the “revenues lost” approach, are costs-  
17 based and undermine the transition to competition. Costs-based methods  
18 focus are a continuation of regulation because their inherent focus on  
19 guaranteed revenue streams; as a result, the market receives unclear or  
20 improper price signals. Moreover, without clear price signals and the threat of  
21 market discipline, market participants will lack the incentive to deliver  
22 effective, efficient and innovative services to consumers.

- 1           3. It reduces or eliminates the need for subsequent administrative processes or  
2           true-ups. Administrative processes frequently require corrections, often as  
3           soon as the ink is dry on the agreement. Customers, thus, may end up paying  
4           too much until a true-up is applied. Additionally
- 5           4. The sale of the assets reduces the ability of utilities to exert market power  
6           through vertical integrated corporate structures.

7

8       **WHAT PROBLEMS EXIST WITH THE “REVENUES LOST” APPROACH**  
9       **ADVOCATED BY TUSCON ELECTRIC AND ARIZONA PUBLIC SERVICE**  
10      **COMPANIES?**

11           The “revenues lost” approach, compares the revenues that would have been  
12      generated by the existing assets under the present regulatory environment with the  
13      revenues that are projected to be recovered in the competitive market. Since the  
14      difference between these two values forms a basis for the stranded costs to be recovered,  
15      it should be clear that utilities would have an obvious incentive to attempt to over-state its  
16      revenue requirements while under-stating future market revenues.

17           When this occurs, customers absorb a disproportionate share of costs. Because  
18      the market value of the asset was understated, the asset can then be used to undercut other  
19      suppliers who are vying to supply a similar service. In that way, the utility may have  
20      created a situation whereby new entrants cannot compete against the utility or its affiliate  
21      for customers. Where competition is constrained, so are the opportunities for consumers.

1 **HAVE OTHER COMMISSIONS SUPPORTED AN ASSET SALE, OR**  
2 **DIVESTITURE AS A MEANS OF ESTABLISHING THE MARKET VALUE OF**  
3 **ASSETS?**

4 Yes. Through both legislation and Commission action, divestiture and market-  
5 based approaches have been adopted as a legitimate means of determining the value of  
6 assets. In addition, many Legislative Bills or Commission actions have further addressed  
7 the need to separate the competitive functions from the utility functions.

8 In its Decision issued on 12/20/95, the California Public Utilities Commission  
9 stated that "...a market-based approach to calculating transition costs associated with  
10 utility assets will produce superior results to an administrative approach. An  
11 administrative approach to valuing utility assets introduces forecasting error and  
12 necessarily relies on numerous assumptions that would likely be contested. For example,  
13 this approach requires long-term forecasts of market prices and assumptions about  
14 existing and future QF obligations, discount rates, capacity factors, and other variables."  
15 The Commission has also encouraged voluntary divestiture as possible means of  
16 mitigating generation market power.

17 In Maine, AB 366 states that on or before March 1, 2000, each investor-owned  
18 utility shall divest all generation assets and generation-related business activities other  
19 than contracts with QF's or demand-side management providers, or generation assets the  
20 PUC determines necessary for the utility to perform its transmission and distribution  
21 obligations.

22 In Nevada, AB 396 states that a vertically integrated electric utility shall not  
23 provide a potentially competitive service except through an affiliate. The PUC shall



1 establish limitations on ownership, operation, and control of the assets of a provider of an  
2 electric service to prevent anti-competitive conduct and ensure the development of  
3 effective competition. Such conditions and limitations may include limitations on the  
4 ownership operation, and control of transmission facilities and any generation necessary  
5 to the reliability and economic operation of such transmission facilities.

6 In New Hampshire, HB 1392 requires, at a minimum, functional separation of  
7 generation from transmission and distribution services. The PUC is authorized to require  
8 that distribution and power supply services be provided by separate affiliates.

9 In Montana, SB 390 provides for a competitive bid sale, third party appraisal, or  
10 an estimation of future market values of electricity and ancillary services as acceptable  
11 means of determining stranded costs

12 Finally, the Massachusetts restructuring legislation requires the electric company  
13 to divest its non-nuclear generating assets as a condition to receiving stranded cost  
14 recovery.<sup>2</sup>

15  
16 **WHAT EXPERIENCE IS AVAILABLE ON THE VALUE OF THE ASSETS IN**  
17 **THE MARKETPLACE?**

18 The initial data indicates that, as markets are developing for retail electricity,  
19 sales of generating facilities have commanded a premium price over book value. New

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<sup>2</sup> There is an exception for electric companies that own and operate generating facilities in other New England states and who choose to retain ownership of non-nuclear generating facilities in Massachusetts for purposes of "efficiency and local ownership of local generation facilities."

1 England Electric System (NEES) has received a price for its non-nuclear generation from  
2 USGenNE of \$1.59 billion, which is 1.45 times NEES' net book value of \$1.1 billion.<sup>3</sup>

3 On November 24, 1997, Southern California Edison was able to achieve a  
4 premium of 2.65 times the net book value of 10 gas-fired generating plants, with a  
5 combined generating capacity of 7,532 megawatts. The net book value of these plants  
6 was \$421 million as compared to the sale price of \$1.115 billion. The plants were  
7 purchased by AES, Houston Industries, a consortium of NRG Eenergy and Destec Energy  
8 and Thermo Ecotek.

9 On November 18, PG&E announced the sale of three power plants to Duke  
10 Energy with a combined capacity of 2,645 megawatts for \$501 million, a premium of  
11 1.31 times their net book value of about \$380 million. The California PUC has approved  
12 the sale and the transaction is expected to close on March 31, 1998. PG&E has  
13 announced its intention to hold a second auction in 1998 of four generating facilities with  
14 a combined generating capacity of 4,718 megawatts.

15 There are several factors which can explain why these assets are commanding a  
16 premium over book value. One assumption is that buyers will be able to unlock hidden  
17 value through cost reduction and other expense minimization opportunities. Other buyers  
18 believe they will be able to increase sales, secure cheaper financing and/or reduce reliance  
19 on transmission capacity to serve congested areas. However, more data will become

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<sup>3</sup> Enron has filed testimony before the Massachusetts Department of Public Utilities on issues relative to the sale which may have deflated the value of the assets on the market.

1 available as more and more companies are considering the sale of their generation assets  
2 as they enter the competitive market.<sup>4</sup>

3

4 **WHAT OTHER COMPANIES HAVE VOLUNTARILY PUT THEIR ASSETS UP**  
5 **FOR SALE?**

6 Portland General Electric (PGE), a wholly-owned subsidiary of Enron Corp., has  
7 made a filing before the Oregon Public Utilities Commission on December 1, 1997, to  
8 offer retail choice to all of its customers. Included in the filing is a proposal by PGE to  
9 voluntary sell its generating assets and power supply contracts through an auction  
10 process. PGE believes a market-based approach to valuing their assets will maximize the  
11 value of the assets over an administrative approach. It will also remove the incumbent  
12 merchant advantage, allowing Energy Service Providers to compete for the role of  
13 merchant to all of PGE's 700,000 customers.

14 Montana Power Company (MPC) announced, on December 9, 1997, its intent to  
15 sell off all of its electric generating facilities and its purchased power contracts. With  
16 competition scheduled to begin on July 1, 1998 for 1 megawatt customers and above, The  
17 Montana Public Service Commission (PSC) is currently in the midst of reviewing the  
18 transition plans of the state's investor-owned utilities. MPC is tendering 1,543  
19 megawatts of capacity with a book value of \$600 million. MPC expects to complete the  
20 sale in 1998. The PSC, per SB 390, cannot order divestiture, but the company may  
21 voluntarily divest.

---

<sup>4</sup> Montana Power Company's announcement to sell all of its generation and power supply contracts. Portland General's December 1, 1997 filing before the Oregon Public Utilities Commission to sell its generation and power supply contracts.

1  
2 **PLEASE PROVIDE AN EXAMPLE OF HOW THE AUCTION OR**  
3 **DIVESTITURE PROCESS WOULD WORK.**

4         In a competitive bid process, the utility provides information relative to the assets  
5 that they are prepared to sell. They solicit non-binding bids from interested parties as a  
6 means of potentially reducing the field of likely purchasers. Once a smaller field of  
7 potential bidders is selected, a second round of binding offers are submitted. From this  
8 second round, a "short list" of suppliers is determined. Following negotiations with all  
9 acceptable bidders, the winner is declared.

10         The final terms of the resulting agreement may be subject to Commission  
11 approval. The Commission may need to determine the proper treatment for the  
12 incremental value of the assets in excess of book. For example, amounts received in  
13 excess of book may be retained by the Company, shared with ratepayers or returned to  
14 ratepayers. The method by which the amounts are returned to ratepayers may also subject  
15 to review by the Commission. For example, ratepayers may receive a one-time credit or  
16 have the entire amount refunded over a period of time. The excess revenues may also be  
17 used to offset other remaining "stranded costs".

18  
19 **WHICH CHARACTERISTICS, OR OBJECTIVES, OF A STRANDED COST**  
20 **CALCULATION METHODOLOGY WERE IDENTIFIED BY THE**  
21 **PARTICIPANTS OF THE STRANDED COST WORKING GROUP?**

1 As reflected in the Stranded Cost Working Group Report (Report), submitted on  
2 September 30, 1997 at 19, the following characteristics were necessary in selecting a  
3 calculation methodology:

- 4 • It should be reasonable, fair and equitable.
- 5 • It should be non-discriminatory.
- 6 • It should promote economic efficiency.
- 7 • It should provide a reasonable opportunity for the affected utility to recover  
8 stranded costs.

9  
10 **DO YOU BELIEVE THAT AN AUCTION/DIVESTITURE/COMPETITIVE-BID**  
11 **SALE WOULD POSSESS THE CHARACTERISTICS IDENTIFIED ABOVE?**

12 Yes.

13 **DO YOU AGREE WITH THE REASONS AGAINST DIVESTITURE**  
14 **CONTAINED WITHIN THE STRANDED COST WORKING GROUP REPORT**  
15 **AT 25?**

16 Generally, no. With respect to the first four items identified in the Report at 25, I  
17 believe recent experience has shown the value to consumers and the utility in divesting.  
18 The preparation costs did not outweigh the value produced by the sale. Certainly the sale  
19 did not produce "fire sale" prices. However, if the concern is timing, the utility should  
20 have some discretion in the timing of the sale.

21 With regard to the Commission lacking authority to order asset sales and  
22 divestiture, that may true. However, the Commission does have the ability to approve or

1 reject stranded cost recovery mechanisms. As other states have done, this Commission  
2 could condition stranded cost recovery with a requirement to divest.

3 I disagree with the characterization that an asset sale may not provide any better  
4 “estimate” of stranded cost.

5 There are complexities involved with nuclear facilities that may make an asset  
6 sale more difficult. Of all of the concerns raised, this appears to be the most legitimate.

7 Lastly, I would disagree that the new open-access transmission rules, which I am  
8 assuming refer to FERC’s rules, eliminate any potential for market power abuse in the  
9 generation market or in the retail market.

10  
11 **PLEASE DESCRIBE THE ANOTHER APPROACH TO DETERMINE**  
12 **STRANDED COSTS IN THE ABSENCE OF AN ASSET SALE.**

13 To the extent the utility divest to some extent, it may be possible to extrapolate  
14 the value of the remaining assets through the experience of the sale. Otherwise, an  
15 acceptable alternative to an asset sale would be an independent third party appraisal of the  
16 assets. A third-party appraisal should provide an unbiased assessment of the value of the  
17 generation. The appraisal would take into account the characteristics of the facility and  
18 the current and anticipated market conditions to determine a value for the asset.

19  
20 **WHAT POSITION DOES ENRON TAKE RELATIVE TO RECOVERY OF**  
21 **STRANDED REGULATORY ASSETS AND OTHER COSTS, AS DEFINED IN**  
22 **YOUR TESTIMONY?**

1           Enron believes that regulatory assets should be recoverable if they are stranded as  
2   a result of a transition to a competitive market. The asset should not be stranded for  
3   regulatory purposes and have value on the market, to the benefit of the utility's  
4   unregulated division or affiliate. For example, utility investments in demand-side  
5   management or renewable resources may have a market value to consumers interested in  
6   those products or services. If regulatory assets are determined to be stranded, they must  
7   be directly related to the introduction of competition. If the regulatory asset is associated  
8   with a physical asset, then some market-based approach for determining the asset could  
9   be used in determining the stranded cost. Otherwise, if the full recorded amount is  
10   attributable to a transition to a competitive environment, then it may be appropriate to  
11   equivocate the stranded cost amount with the recorded value.

12

13   **1. SHOULD THE ELECTRIC COMPETITION RULES BE MODIFIED**  
14   **REGARDING STRANDED COSTS, IF SO, HOW?**

15           Enron strongly supports the Commissions definition of stranded costs. However,  
16   Enron would recommend modification to the indicated sections of the rule dealing with  
17   stranded costs as follows:

18   R14-2-1607.A. The Affected Utilities shall take every feasible, cost-effective measure to  
19   mitigate or offset Stranded Cost. ~~by means such as~~ Expanding wholesale or retail  
20   markets, or offering a wider scope of services for profit, among others, **should be**  
21   **provided through its affiliate or unregulated merchant division.**

22           Enron believes that the utilities have a responsibility to pursue every feasible cost-  
23   effective measure to mitigate stranded costs. These measures would include:

- a. buy-out or buy-down of any power purchase or qualifying-facility long-term contracts;
- b. sale of a facilities at the prevailing market prices,
- c. securitization, if done properly, is a means by which to mitigate financing costs for facilities, that are not sold
- d. improved efficiencies in operation, maintenance and administrative and general costs.

However, the Commission should take care in encouraging the **utility** to pursue expanding wholesale and retail markets, or offering a wider scope of services for profit. As competition is merely beginning in Arizona, care has to be given that the market has an opportunity to develop. This may be difficult if the incumbents role in the competitive market is unclear. Having the utility performing a dual role as a regulated distribution supplier and the competitive energy services provider can cause great harm to a developing market. Many jurisdictions have recognized the ability of the utility to have a superior position in the market through the use of utility assets, (ie. information, personnel, equipment, etc.) included in jurisdictional rates but used in competitive enterprises. An example of states which have addressed separation of competitive services from regulated services are Maine and Nevada.

It is important to have clear separation as to competitive and regulated functions to avoid the misallocation of costs, confusion in the consumers' minds, and to allow competitors entering the market an opportunity to compete fairly. Enron would encourage this Commission to, at a minimum require functional separation of the transmission, generation, distribution and competitive services of the utility. A preferred



1 option would be for the utility, or the holding company of the utility, to form an  
2 unregulated subsidiary. Only through the subsidiary can competitive services be offered  
3 while the utility offers regulated distribution services. This permits the utility to expand  
4 the list of tariffed distribution services it offers while allowing the unregulated affiliate,  
5 or division to pursue expanding wholesale or retail markets beyond the traditional  
6 markets.

7 In addition to separation, the Commission must also address the standard of  
8 conduct through which communication and information can be provided between the  
9 regulated utility and its unregulated divisions or affiliates. States which have adopted  
10 affiliate standards of conduct are New York, New Jersey, Maryland, Wisconsin, Rhode  
11 Island, New Mexico and California.

12  
13 R.14-2-1607 H. An affected Utility shall request Commission approval of distribution  
14 charges or other means of recovering unmitigated Stranded Cost from customers who  
15 reduce or terminate service from the Affected Utility as a direct result of the competition  
16 governed by this Article. **Recovery of lost revenues as a result of discounts to**  
17 **customers who obtain lower rates from the Affected Utility as a direct result of the**  
18 **competition governed by this Article, other than the amount established through a**  
19 **stranded cost proceeding, should be subject to either review by the Commission or**  
20 **shareholder risk.**

21 Enron believes additional clarification is needed with regard to this article. Enron  
22 does not argue that a wires charge or distribution charge is a means by which to recover  
23 stranded cost, however utility discounting for competitive reasons may be more

1 complicated than is reflected in the rule. For example, if the Commission establishes that  
2 the market value of the utilities generation assets is less than the book value, the amount  
3 that is stranded is known and recoverable as a distribution or Competitive Transition  
4 Charge (CTC). However, the utility may decide to discount its generation below the  
5 established market value or may engage in discounting of distribution charges in order to  
6 retain customer loads. The Commission should not allow recovery of such discounting as  
7 a non-bypassable charge. The Commission must determine whether or not it is  
8 appropriate to recover those costs from ratepayers or whether there should be some level  
9 of shareholder risk. If that is the Commission's intent, clarification of this language is  
10 necessary.

11 R.14-2-1607.J. Stranded cost **should be identified as a component of all customers**  
12 **rates, regardless of their supplier.**~~may only be recovered from customer purchases~~  
13 ~~made in the competitive market using the provisions of this Article.~~ Any reduction in  
14 electricity purchases from an Affected Utility resulting from self-generation, demand side  
15 management, or other demand reduction attributable to any cause other than the retail  
16 access provisions of this Article shall not be used to calculate or recover any Stranded  
17 Cost from a consumer.

18 Enron believes that stranded costs should be recovered from all customers,  
19 regardless of whether or not they are receiving service from a competitive supplier.  
20 Stranded costs arise when the market value of the utility asset is less, on a net basis, than  
21 the net book value. Stranded costs are not attributable to any particular customer group,  
22 but are the result in a change from a regulatory environment to a competitive  
23 environment. Therefore, all consumers pay stranded costs, even if those costs are

1 identified as a component of the customers' otherwise bundled rate. This will remove the  
2 appearance that this charge is a factor to be considered as to whether or not the customer  
3 will access competitive services or supplies. The transition charge should not affect the  
4 decision of a consumer as to whether to stay with the utility or obtain an alternate  
5 supplier. Any rate treatment which distinguishes the recovery of the charge between  
6 standard offer or competitive services, runs the risk of influencing the economic decision  
7 of the customer.

8  
9 **2. WHEN SHOULD "AFFECTED UTILITIES" BE REQUIRED TO MAKE A**  
10 **"STRANDED COST" FILING PURSUANT TO A. A. C. R14-2-1607?**

11 Enron does not believe the rules specifically address the timing of the "Affected  
12 Utilities" stranded cost filing. However, the timing is important if stranded cost recovery  
13 is to coincide with the scheduled date of implementation of competition, January 1, 1999.

14 Enron has a recommendation. The Commission should require a filing by the  
15 affected utilities within 30 days of an order in this proceeding in compliance with the  
16 determinations in the order. In no event should the lack of a filing inhibit the start of  
17 competition on January 1, 1999. In other words, in order to incent the utilities to be  
18 responsive and act quickly, competition should begin as contained in the Rules, even if a  
19 final determination has not been made on their stranded cost applications. Any actual  
20 stranded costs incurred in the interim can either be determined through a subsequent  
21 accounting order or, if the Commission determines that a limited period for recovery is  
22 appropriate, the recovery period could begin with a final determination in the utility-

1 specific stranded cost proceedings. This will provide an incentive to the utilities to file as  
2 quickly as possible and to conclude the stranded cost proceeding as quickly as possible.

3  
4 **8. SHOULD THERE BE PRICE CAPS OR A RATE FREEZE IMPOSED AS**  
5 **PART OF THE DEVELOPMENT OF A STRANDED COST RECOVERY**  
6 **PROGRAM AND IF SO, HOW SHOULD IT BE CALCULATED?**

7 Price caps, as indicated in the stranded cost working group report, may be  
8 appropriate to protect consumers from increases in energy rates in excess of their present  
9 amounts for a transitional period. This would assume that the costs associated with  
10 distribution and transmission service is the same relative to existing levels and only  
11 energy prices, including stranded costs, are subject to change. However, price freezes are  
12 completely objectionable. A price freeze insulates the consumer from the market price of  
13 electricity. A price cap protects consumers from experiencing rates in excess of their  
14 current rates, however a price freeze also prevents consumers from realizing any of the  
15 benefits of competition through additional savings resulting from lower electricity prices.  
16 This freeze prevents competitors from offering price products to consumers, and therefore  
17 chills competition.

18  
19 **4. SHOULD THERE BE A LIMITATION ON THE TIME FRAME OVER**  
20 **WHICH "STRANDED COSTS" ARE CALCULATED?**

21 Yes. The Commission should designate a time period over which stranded costs  
22 can be calculated. This time period could be, for example, the 5-year transition time  
23 frame which the Commission has designated to reach full access to competition by 2003.

1 A limited time frame has appeal for a couple of reasons. It provides an incentive to the  
2 utility to transition. The utility cannot continue in its business as usual mode. It will  
3 need to determine how it will be profitable as a wires company, and what role its  
4 unregulated affiliates will have in providing energy services.

5  
6 **5. SHOULD THERE BE A LIMITATION ON THE RECOVERY TIME FRAME**  
7 **FOR “STRANDED COSTS”?**

8 Yes. Enron submits that the recovery period should take into consideration the  
9 phase-in schedule that provides choice to consumers. In general, I would support a  
10 recovery period of three to five years. However, stranded cost recovery should coincide  
11 with access to choice. If the existing schedule to provide access remains, recovery of  
12 stranded costs will have be essentially completed prior to all customers having access.  
13 For this reason, under the existing rules, it may make sense to prolong the recovery period  
14 beyond five years. If the phase-in schedule is accelerated, a three to five years recovery  
15 period would be appropriate.

16 California, for example, has a four-year transition cost recovery period ending on  
17 1/1/02. Montana Power Company (MPC) has proposed a four-year transition cost  
18 recovery period in their transition plan to coincide to end on June 30, 2002, the transition  
19 period defined by SB 390. The Pennsylvania PUC Decision in the PECO Transition Plan  
20 adopted a three and one-half year recovery period.

1    **6. HOW AND WHO SHOULD PAY FOR STRANDED COSTS AND WHO, IF**  
2       **ANYONE, SHOULD BE EXCLUDED FROM PAYING FOR STRANDED**  
3       **COSTS?**

4           The methodology from allocating stranded costs to consumers should be  
5 consistent with the methodology used in allocating the assets to consumers. This will  
6 reflect a proportionality of the recovery of stranded costs in relation to the manner in  
7 which the assets were originally allocated in rates. This method will prevent shifting of  
8 stranded cost responsibility among customer classes.

9           I support the language in article J of R14-2-1607 which provides for exclusion of  
10 stranded cost recovery from self-generators, demand-side management or “other demand  
11 reduction attributable to any other cause” other than retail access. In addition, I believe  
12 there is a credible argument to exclude interruptible customers from stranded cost  
13 recovery associated with generation which was not designed to serve interruptible load.

14          The manner in which these costs are recovered from the customer classes should  
15 be consistent with the existing rate design. This will also prevent cost shifting among  
16 customer classes. For example, if rates are currently recovered on a cent per kWh basis,  
17 the stranded cost charge should be recovered on the same basis. Likewise, if the rate  
18 design includes a fixed or demand charge component, the stranded cost charge should be  
19 similarly designed. Enron supports the findings in the stranded cost working group report  
20 whereby recovery of stranded costs could include a unit or variable charge, a fixed charge  
21 and a prepayment option.

22          The Commission should adopt a proposal for stranded cost recovery where the  
23 amount of the stranded cost charge, to be recovered either on a kWh or kW basis, is

1 known. In other words, the stranded cost charge should not be a residual calculation  
2 based on a bundled rate net of distribution, transmission, USBC and a clearing price for  
3 generation. This approach impedes competition by making it very difficult for a  
4 competitor to determine its costs if the market clearing price is constantly changing. This  
5 calculation can be complicated further by pricing changes on fifteen minute intervals,  
6 hourly or during congestion periods. The use of either an asset sale or an appraisal  
7 provides certainty in stranded cost amounts and charges.

8  
9 **7. SHOULD THERE BE A TRUE-UP MECHANISM AND, IF SO, HOW**  
10 **WOULD IT OPERATE?**

11 Divestiture or appraisal obviates the need for true-ups except to the extent, at the end  
12 of the recovery period, the Commission requires a true-up to determine that no more or  
13 no less than the actual amount of stranded cost was recovered.

14 Enron submits that the Commission should strive to seek stranded cost methodologies  
15 which eliminate or minimize the need for subsequent administrative review or hearing.  
16 To the extent that these issues can be determined it is more beneficial for the competitive  
17 market to make a clean determination of the costs and move forward into the market.  
18 The one-time determination also provides the market with certainty about what the  
19 stranded costs will be. The market can then determine how to provide products and  
20 services with that determination made. Further administrative proceedings bring  
21 uncertainty into the marketplace as to the value of stranded costs and prolong the  
22 connection of regulation into a competitive environment.

1    **9. WHAT FACTORS SHOULD BE CONSIDERED FOR “MITIGATION” OF**  
2    **STRANDED COSTS?**

3           Enron believes the utilities should be required to perform cost-effective mitigation  
4    of stranded costs as much as feasible. Enron has identified some ways by which the  
5    utility can mitigate its costs in the response to Question 1. I again restate my concern  
6    about having the utility directly engage in competitive services as a means by which to  
7    expand revenue generation and mitigate stranded costs. The utility should segregate  
8    competitive services from regulated services with an enforceable code of conduct. If the  
9    utility, on one hand, is recovering stranded costs with a claim that the assets are devalued,  
10   and then, on the other hand, is able to extract market value through expanding markets,  
11   these positions seems to be in direct conflict. Again, if a market-value approach had been  
12   taken in evaluating the assets, this conflict would not arise.

13  
14   **3. Sub-issue: The implications of the Statement of Financial Accounting Standards**  
15    **No. 71 resulting from the recommended stranded cost calculation and recovery**  
16    **methodology.**

17  
18           Although my background and expertise are not in this area, I will provide a brief  
19    response to this question. I understand that SFAS 71 provides for regulatory financial  
20    accounting treatment for investor-owned utilities that is consistent with Commission  
21    Orders or Rules. I also understand that this standard differs from treatment available to  
22    unregulated business. A significant difference in the accounting between regulated  
23    utilities and unregulated businesses is the provision that allows the creation and



1 amortization of Regulatory Assets. Regulatory Assets are generally current costs of  
2 which the recovery is deferred to future periods. If the Commission determines that  
3 certain services, which had been regulated services, to be competitive, the utilities no  
4 longer qualify for the accounting treatment of SFAS 71. The treatment afforded by  
5 SFAS 71 appears only to be applicable to the utility's regulated assets. The question  
6 becomes, once a service has been determined to be competitive, does the determination  
7 result in a requirement by the utility to immediately write off those assets? I do not  
8 believe so.

9 As part of the transition process to competition, the assets will be evaluated for  
10 their market value. That value will be assessed against the book value. The net  
11 difference of the asset's book value relative to its market value will be considered a  
12 stranded cost, if the book value is greater than the market value.<sup>5</sup> At that point, the  
13 Commission has made a determination about a stranded cost amount, which is a  
14 regulatory determination regarding the stranded cost amount, which should be evaluated  
15 by the Commission on a case by case basis. In other words, it may no longer be  
16 appropriate to use SFAS 71 accounting treatment relative to generating assets, however it  
17 would be appropriate to use SFAS 71 accounting treatment to account for the  
18 establishment and recovery of stranded costs.

19  
20 **DOES THIS CONCLUDE YOUR TESTIMONY?**

21 Yes.

---

<sup>5</sup> Divestiture facilitates this process as it provides the proceeds from the sale to be applied against the book value of the asset.